REPORT RESUMES

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A DESCRIPTIVE AND COMPARATIVE STUDY OF THE ADMINISTRATIVE PATTERNS OPERATIVE IN SIX SCHOOL HEALTH PROGRAMS. FINAL REPORT.

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DESCRIPTORS- *HEALTH PROGRAMS, HYPOTHESIS TESTING, *PROGRAM ADMINISTRATION, FINANCIAL SUPPORT, *SCHOOL HEALTH SERVICES, *HEALTH EDUCATION, SCHOOL NURSES, DENTAL HEALTH, HEARING CLINICS, MEDICAL SERVICES, VISION TESTS, IMMUNIZATION PROGRAMS, ELEMENTARY SCHOOLS, SECONDARY SCHOOLS, QUESTIONNAIRES, *SCHOOL SUPERINTENDENTS, HEALTH PERSONNEL, EXPENDITURE PER STUDENT, KNOXVILLE,

FOUR HYPOTHESES RELATED TO SCHOOL HEALTH PROGRAMS IN SIX SELECTED COMMUNITIES--DENVER (COLORADO), DUVAL COUNTY (FLORIDA), EVANSTON (ILLINOIS), PORTLAND (OREGON), PRINCE GEORGE'S COUNTY (MARYLAND), AND TACOMA (WASHINGTON)--WERE TESTED THROUGH ANALYSIS OF INTERVIEW AND QUESTIONNAIRE RESPONSE DATA. OF 321 QUESTIONNAIRES MAILED TO A SELECTED SAMPLE OF HEALTH PROGRAM PERSONNEL, 217 (67.7 PERCENT) WERE RETURNED USABLE FOR ANALYSIS, WITH APPROXIMATELY 35 FROM EACH COMMUNITY. IN THE SIX COMMUNITIES, 155 INTERVIEWS WERE CONDUCTED WITH SELECTED SCHOOL AND COMMUNITY PERSONNEL. STATISTICAL ANALYSIS GENERALLY CONFIRMED THAT (1) QUALITY OF THE SCHOOL HEALTH PROGRAM IS RELATED TO ADMINISTRATIVE ORGANIZATION AND RELATIONSHIPS, (2) QUALITY OF THE SCHOOL HEALTH PROGRAM IS RELATED TO SOURCE AND EXTENT OF FISCAL SUPPORT, (3) MAINTENANCE OF AND/OR IMPROVEMENT IN STUDENT HEALTH IS RELATED TO ADMINISTRATIVE ORGANIZATION AND RELATIONSHIPS, AND (4) EFFECTIVE INTEGRATION OF THE THREE PHASES OF THE SCHOOL HEALTH PROGRAM (INSTRUCTION, SERVICES, AND ENVIRONMENT) IS RELATED TO ADMINISTRATIVE ORGANIZATION AND RELATIONSHIPS. DESCRIPTIONS OF THE VARIOUS SCHOOL HEALTH PROGRAMS FOCUS ON SPECIAL ACHIEVEMENTS AND IDENTIFY MAJOR PROBLEMS IN SCHOOL HEALTH PROGRAMMING. APPENDICES INCLUDE THE SELF-ADMINISTERED QUESTIONNAIRE, SUPPORTING DATA, ORGANIZATIONAL CHARTS OF THE SIX SCHOOL SYSTEMS, AND PERCEPTIVE DIFFERENCES OF TEACHERS, STAFF PERSONNEL, AND LINE ADMINISTRATORS. (JK)

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Cyrus Mayshark

May, 1967

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Introduction

This study seeks to fill, in part, a void which has persistently existed in the literature regarding a most important aspect of school health programming. To wit, there is very little descriptive and comparative data now available to the interested practitioner or researcher about the administration of on-going school health programs. It is hoped that as the data of this and subsequent studies are contributed to the literature effective patterns of administrative practice will emerge and that the relative effectiveness of each in the context of varying and accelerating community change may be ascribed.

Before embarking on the design of this study, however, a brief review of previous research which has focused on administrative concerns is in order.

Moss (3) sent an extensive questionnaire to California's forty full-time local health departments to determine their role in school health services. Among other findings she pointed out that jurisdictional problems appeared to be solved best where the funds for school health services were made a part of the school's budget, but the money was tagged for purchasing the services from the health department. This procedure, while not required, was encouraged by state law.

An extensive study by Kilander (1) described the administrative and financing authority for the school health service program in 2,886 city school systems. While he did not elaborate, Kilander indicated a trend toward joint (board of education and board of health) administration and financing of school health programs.

Neilson and Irwin (4) analyzed 1,071 replies to a questionnaire seeking information about school health practices and found considerable lack of coordination between school health services and health instruction, and inadequate full and part-time personnel to adequately carry out the existing health service program.

Price (5) conducted an excellent survey of evaluative studies in school health and included a number of pertinent recommendations for future study. One of these was a recommentation that a judgmental study be developed to investigate the jurisdictional problems, including questions of how the administrative and financial responsibilities should be distributed between health and education authorities. He stated that:

> "It is conceivable that a rather long time hence optimum solutions of this problem might be aided by controlled comparisons. For the present and immediate future, however, communities could well seek advice on this problem from outside experts whose judgment should be guided largely by the history, present resources, and future expectations of each community concerned."

Mayshark sent inquiries to 270 school health program administrators during 1962-63. Seventy-four recorded and returned five or more critical incidents that actually occurred while carrying out their administrative responsibilities. These have been integrated into a recent publication (2) on the administration of school health programs.

The spirit and the intent of the study described here is expressed in an article summarizing the limited research on the question of who should administer the school health service program. In this article, Wesley (6) concludes:

> "Perhaps we have placed too much faith in structure and not enough in the process of planning itself. Cooperation is not submitting plans for another's approval. It is working out a solution together. Persons and groups that keep the ultimate goal of better health for children in mind will find it easier to be flexible about jurisdictions; to entertain new responsibilities; and to look into the future. True cooperation, then, is the answer to the question: "Who shall administer the school health program?"

But it is unrealistic to suggest that cooperation is a variable that operates independently of administrative relationships. How professionals relate to one another is influenced by more than a personal desire to get along with others having similar program objectives. Equally important are other factors that include: (1) the prevailing philosophy regarding the place of a school health program (instruction, services, environment) in the educational setting; (2) degree of involvement of the local health department in an official (budgetary transfers, specific job descriptions, transfer of responsibility, etc.) and an unofficial (nurse-teacher rapport, spontaneous inter-agency information exchange, etc.) sense; (3) the sanction given the school health program by the key school administrator and less significantly those administrators operating immediately below the key administrator; and (4) the number, variety, competence, and enthusiasm of the personnel with full or partial responsibility for the program.

The degree to which these and other factors influence program and more importantly influence student health were the objectives of this study. Specifically, this study was designed to examine the following four null hypotheses.

1. Quality of school health program is unrelated to administrative organization and relationships.
2. Quality of school health program is unrelated to source and extent of fiscal support.
3. Maintenance of and/or improvement in student health is unrelated to administrative organization and relationships.
4. Effective integration of the three phases of the school health program (instruction, services, environment) is unrelated to administrative organization and relationships.

The route to a point where acceptance or rejection of these null hypotheses is possible will include the following: the methods used to collect the data; the results drawn from the data including a description of the six school health programs and the findings of the mail questionnaire; a discussion which compares the six programs and identifies four key variables affecting their relative success; and finally the summary and conclusions. As a postscript, four major recommendations are offered as suggestions for current practitioners and future researchers of school health administration. Appendices A - F contain supplementary material which the reader will want to examine closely as reference is made to specific portions of these in the body of the report.

Method

The study was conducted in two stages: The first of these was a closed-end interview schedule (Appendix A) which was mailed to 46-60 respondents (Appendix B, Table 5) in each of the six selected communities. Included among these respondents was a cross section of the school districts' teaching and administrative staff (i.e. elementary and secondary teachers, school health service personnel, key line and staff administrators) and local public health officials. The composition of each respondent group was 10-15 elementary teachers, 10-15 secondary teachers, and a selection of key administrators ranging from the superintendent to nurses and maintenance personnel. In all, 321 respondents received questionnaires.

The second stage of the study was a personal interview with 20 or more respondents in each of the six communities. Among this sampling were some respondents who had received the mail questionnaire but also many who did not. The persons interviewed are identified by community and title in Appendix E.

Since this study was conceived as an exploratory one and the sample was necessarily small (an arbitrary choice of six as the sample size was made based on available time), it was important to consider two factors in school district selection. First, the school health programs had to represent a variety of types in terms of administrative control, source and amount of financing, socioeconomic level of community, and involvement of local health department and other community health resources. Second, it appeared desirable to have a personal contact, previously known to the author, in each community who could assist in the details of selecting respondents, encouraging returns, arranging the personal interview schedule, and other related matters.

The six school districts studied, therefore, included the following:

1. Denver, Colorado - The Denver school system has, for many years, been given nationwide credit for an excellent school health service program. The quality of this program and the extent to which it carries over to instruction and environment was explored.

2. Duval County (Jacksonville), Florida - This school system

has suffered severe economic trauma in recent years and, as a consequence, has lost its accreditation by the Southern Association of Colleges and Schools for the lowering of academic standards. The extent to which this problem was reflected in the school health program was explored.

3. Evanston (School Districts 65 and 202), Illinois - This community was selected because of its participation in the School Health Education Study and because of its widespread recognition for generous support of education. These two factors reflect excellent administrative and community climate, and it appeared logical to study the administrative pattern present.

4. Portland, Oregon - The school health program in this school district is split into two distinct parts. On the one hand, the school administration is responsible for the instruction program in health. On the other, the Portland City health department shares responsibility with the Multnomah County health department for school health services. Does such division of responsibility in a single school district compound the problems of school health administration?

5. Prince George's County (Upper Marlboro), Maryland - This school district is an appropriate contrast to Duval County. While both rank in the first 20 by size, Prince George's expends considerably more money per student per year for all educational services. Is this difference, as well as others, reflected in significant differences in school health programing and in the health of students?

6. Tacoma, Washington - In this school district both health instruction and health services are directed by competent, professional persons who have been placed in positions of considerable visibility in the administrative hierarchy. Since this community also participated in the School Health Education Study, it was felt that an examination of the existing administrative patterns and climate would contribute immeasurably to knowledge about the stated hypotheses.

The main body of this study is contained in the next two sections. The first of these ("Results") includes a description of the organization of the school health program in each of the six school districts. Precise lines of authority are described, and other related data, such as source and amount of financing, are included. Following this the statistical findings of the mail questionnaire are presented. In the second ("Discussion"), comparisons between the several programs are made in light of the above data and the extensive (155) personnel interviews.

Results

This section describes significant aspects of the organizational patterns and financial support of the six school health programs, and presents the results obtained from the mail questionnaires.

Description of Programs. The six school health programs are considered in alphabetical order.

Denver, Colorado. In 1966-67 the Denver School District Number One educated 96,260 students at a total cost of $57,459,993 (Appendix B, Table 1) and a per pupil cost of $596.25 (Appendix B, Table 2). Within this large budget, as with the other programs also, it is difficult to ascribe a dollar cost for that portion of the academic program devoted to health instruction. It is possible, however, to discuss the quantity and to some extent the quality of health instruction. This is done for each of the six programs. In this same year the school health services department had a budget of $877,134 which represented a per pupil expenditure of $9.11 (Appendix B, Table 3). The third aspect of the school health program, healthful school living, is operationally defined here as that portion of the total school program included in the operation and maintenance of the plant. For Denver this represented a per pupil expenditure of $69.25 for the period of time under study (Appendix B, Table 4). Important aspects of this expenditure will be compared to similar aspects in the other school districts shortly. Tables 1-4 of Appendix B and Figures 1-6 of Appendix C will be used in describing the remaining five programs that follow without referring to them specifically at each point.

Responsibility for the direction and coordination of health instruction falls to a supervisor under the assistant superintendent for instructional services. This supervisor devotes approximately 40 per cent of her time to health instruction and 60 per cent as an area (geographic) representative (one of nine in the administrative hierarchy). In this latter capacity she coordinates curriculum activities in one high school and the elementary schools and junior high schools that feed into it.

The quality and quantity of health instruction in the Denver schools is open to conjecture. At the elementary grades (1-6) a guide, Hints for Health Teaching, was produced in 1965 by the Department of General Curriculum Services and all elementary teachers have a copy. The extent to which this is used is highly variable and depends upon individual teacher initiative. Administrative encouragement appears to be negligible as evidenced in the publication Denver Looks at Its Schools, a study conducted by Research Services, Inc. in 1965. One of the questions in this survey was the following: "Here is a list of the subjects taught in the Denver Public Elementary Schools. For each subject, which of the following statements best expresses your feelings?

-very important for all
-worthwhile, but not for all
-not worthwhile"

The subjects listed below this question were English, arithmetic, social studies, physical education, science, foreign language, music, and art. Health is conspicuous by its absence.

At the junior high level (7-9) a single notebook page titled Fitness for Daily Living, dated 1961-62, is the guide which encourages the integration of health instruction into several other subjects. Thus, aspects of nutrition, care of the body, and body structure are included in home economics (which only girls take), physical education and science while aspects of safety, community health, and personality development are found in these areas and also in social studies. In 1965, a unit on alcohol, narcotics, and tobacco was developed but on the dates of the field visit for this study (Appendix B, Table 7) no decision had been made as to where it would be taught.

One semester of health instruction was required at the senior high level (10-12) prior to 1963. In that year the administration brought in a consultant to study the biology program and make recommendations for upgrading. He recommended a full year of biology and suggested that time be found for it by eliminating the health instruction requirement. This was approved and while students may now elect health instruction in lieu of biology "only the poorer students do so."

In the nine high schools health is taught by the physical education teachers who administratively fall in the Department of Health Education. This title is actually a misnomer since the department is clearly understood to be responsible for physical education, costumes, recreation, athletics and safety and civil defense but for health instruction only by necessity and tradition. The statement, "It's your turn to teach health this semester" is indicative of the manner in which many - but not all - of the physical educators accept this responsibility.

In contrast to the disconnected nature of health instruction, the Health Services Department is tightly organized, well staffed and adequately financed. Full time professionals in this program include four physicians, two dentists, three dental hygienists, three dental assistants, 80 nurses, one audiologist, and one audiometrist. In addition, part time and seasonal professionals include 18 physicians, four nurses, seven dentists, two dental assistants, and one audiologist.

The program of the Health Service Department may be summarized under four main headings. Each of these is action oriented as seen in the following summary of responsibilities.

A. Nursing Services

1. Counsels with teachers regarding the health needs of individual pupils to provide the best educational opportunity for each child.

2. Implements screening procedures to detect communicable diseases and deviations in vision, hearing, and growth.

3. Maintains a current and complete cumulative health record for each pupil.

4. Arranges for health appraisals as indicated (under Medical Services).

5. Interprets pupil's health needs to parents and pupils and assists them in utilizing health care and community resources.

6. Observes children at all times to identify those needing further health evaluation and/or special education consideration.

7. Helps to provide health education opportunities to pupils, teachers, and parents through meetings and educational materials.

B. Dental Services

1. Gives dental inspections and instruction to pupils in certain grades.
2. Reports results of dental conditions to parents.
3. Assists with dental education in classrooms.
4. Provides a corrective dental clinic for pupils who cannot have private care.

C. Hearing Services

1. Gives screening tests in schools to pupils at certain grades, new entrants, teacher referrals, and pupils with previous defects.
2. Provides more complete tests in soundproof rooms to hearing problem cases referred from schools.
3. Evaluates hearing acuity on adult personnel before employment and periodically thereafter.

D. Medical Services

1. Gives health appraisals, upon request to new pupils, those with known or suspected health problems, and pupils in certain grades.
2. Evaluates fitness of all pupils entering varsity sports and swimming.
3. Examines handicapped children for special education program.
4. Offers immunizations and vaccinations to pupils.
5. Gives pre-employment and pre-tenure teacher examinations.
6. Gives pre-employment examinations to all other employees and periodic examinations to lunchroom workers and bus drivers.
7. Offers limited consultation and preventive services to employees.

8. Serves parents for individual problems, PTA, and preschool groups.

9. Cooperates in health instruction and curriculum.

10. Aids in development and implementation of all health policies.

Implementation of the broad objectives just listed is achieved in part by making routine in all schools a number of specific health services. The major activities for which health service staff members are responsible are:

1. Dental Inspections--All elementary school pupils are inspected annually as a service of the dental hygienists; secondary pupils, less often.

2. Height and Weight--All elementary pupils are weighed and measured once a year, in the fall. Secondary pupils are weighed and measured in the 9th grade. Significant weight deviations are given additional attention.

3. Vision--Vision is checked for pupils in kindergarten and in grades 1, 3, 5, 7, and 10; new pupils to the Denver public schools; pupils previously missed on routine check; pupils with previously suspected deficiencies who have not sought follow-up care; and pupils referred due to various symptoms.

4. Hearing--Hearing is checked for pupils in kindergarten and in grades 1, 3, and 7; new pupils to the Denver public schools; pupils previously missed on routine check; pupils with previously suspected deficiencies who have not sought follow-up care; and pupils referred due to various symptoms.

5. Medical Appraisals--Those pupils who have not presented a health report from their family physicians within the first semester of the year, and who are enrolled in grades 1, 6, and 9 are offered a medical appraisal by a school physician. All new pupils and special cases referred to the nurse by teachers and parents because of known or suspected health problems are offered a health appraisal upon the parent's request.

6. Immunizations--For those not already immunized by their own physicians, diphtheria-tetanus toxoid and smallpox vaccination are offered annually for pupils in need of initial protection. Also, booster shots of DT Toxoid are offered at 4 year intervals and smallpox revaccinations are offered every 5 years. Parents assist nurses in preparing notices and obtaining signed parental requests. Immunizations are given only to those pupils whose parents request it on a special form sent by the school.

7. Emergency Illnesses and Accidents--Health staff personnel establish policies for, and assistance in, these emergencies.

8. Health Evaluations--Are done for all children for placement in special education classes as those for orthopedically and mentally handicapped and for those with vision and hearing impairments. Also, private, clinic, or school physicians help to assess the learning problems of pupils before they have school psychiatric consultations. In addition pupils are examined for participation in varsity athletics, ROTC, and certain other school programs.

9. Nuisance Disease Inspections--For scalp ringworm, scabies, itch, plantar warts, and athletes foot are carried out periodically as needed.

An interesting facet of the Denver program is the attention given to special projects. In recent years the annual reports of the Health Service Department have summarized these. Their inclusion clearly indicates that the program goes well beyond the specifics already cited. In 1965-1966 these projects included the following:

1. Development of a cooperative program for perceptually handicapped children.

2. Assistance in collection of additional health and school data on pupils previously treated at a local prematurity center.

3. Comparative study of two methods of applying smallpox vaccine.

4. Complete evaluation of vision and hearing of pupils in the Title I reading program.

5. Assistance in a seminar for smoking education with the state department of education.

6. Cooperation in a one-day seminar for sex education in the schools.

7. Extended use of psychiatric consultations for certain emergency problems in the schools.

8. Extended safety measures assured in all secondary school shops.

9. Nurse coordination of health appraisals and follow-up care in new federally funded programs.

10. Assistance in planning for a community school program for unwed mothers to serve more d.p.s. girls.

11. Appointment of a committee to review and revise the sex education filmstrip for sixth grade boys.

12. Cooperative planning with city health and welfare departments for more comprehensive health care of children and youth.

13. Assistance in cancer education program for lunchroom workers.

14. Psychiatric consultative help with mothers in the parent education and preschool groups.

15. Joint planning and participation in an inservice seminar with the department of social work and psychological services.

16. Development of inservice training for primary teachers concerning perceptual difficulties in early reading.

17. Cooperation with a special pilot study regarding posture of girls in one junior high school.

18. Assistance in development of a state handbook for administrators regarding school health programs.

19. Staff aid in a state conference for junior high school student leaders on smoking and health.

20. Participation in a federally funded project to assist nurses in group work with adolescents.

21. Development of a committee to plan and help produce a filmstrip on the "Role of School Nurses."

22. Completion of a two-year evaluation of uristix testing of high school varsity athletes.

The nature and variety of these projects indicates that the Denver health service program has built in a number of evaluation projects that permit continual appraisal of program achievement.

Duval County, Florida. The Duval County school district ranked among the 20 largest school districts in the country in 1966-67; 116,674 students were enrolled at a total cost of $53,454,970 and a per pupil cost of $458.16. This budget included $9,000 for health services which went for first aid supplies and equipment and represented a per pupil expenditure of $.77. City and county health departments serviced district schools in their respective jurisdictions and absorbed the cost for these activities, administered primarily by nurses, into their total budgets. The extent of operation and maintenance of the school plant was reflected in a per pupil expenditure of $55.63.

Responsibility for the supervision and coordination of health instruction at both the elementary and secondary level rests with the director of physical education and health. In addition, this man directs a civil defense and safety program and a driver education program. The extent to which the director had provided leadership for curriculum development in health instruction was unapparent during field visits. In 1966-67 there were no district wide health units in operation at any grade level (this fact made Duval County unique among the six districts included in this study) and health texts were virtually absent. At the elementary level many teachers are teaching well structured units, but such teaching is entirely dependent upon individual teacher initiative and the influence of city and county nurses as they visit and counsel with teachers. At the secondary level health instruction in an organized progressive sense is nonexistent. In isolated instances categorical instruction occurs (i.e. - a three day veneral disease unit in a senior level elective Family Living course at Terry Parker Senior High School in response to suddenly recognized problems). None of this is coordinated at the district level and only exists at all as individual principals, parents and student groups respond to felt needs.

Health services, while seen on the organizational chart as the responsibility of a supervisor under the assistant superintendent for administration, are virtually nonexistent when viewed solely as a board of education responsibility. No school employee had as an assignment the coordination of these activities in the schools and no one above the principal level could accurately describe what services were being carried out. An earlier report* identified a similar administrative deficiency, but fell short of complete accuracy when the involvement of city and county health departments was overlooked. Health services, as conducted by these two important groups, did exist in 1966-67. Schools were visited, vision, hearing and other screening examinations were conducted, teacher-nurse conferences were held and many other activities were carried out. The 1965-66 nurses' report contained in the city health department's annual report included the following facts regarding the school program.

Pupils seen	16,430	No. ch. insp. for RW	1,513
No. visits to school	1,886	No. pos. found	538
No. hrs. spent in school	2,753½	No. vision rechecks	2,765
Pupils Adm. to nur. ser.	2,796	Dem.to teach of vis.T.	14
Field visits to sc. ch.	2,221	Dem.teach of CD insp.	--
Office visits to sch.ch.	44	No.nurse-teacher conf.	3,783
No. cr. ch. adm.	112	No.nurse-parent conf.	552

(continued)

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*Division of Surveys and Field Services, George Peabody College for Teachers, Duval County, Florida Public Schools, A Survey Report, 1965, George Peabody College Press, p. 133.

(continued from page 15)

No. cr. ch. ref. to C.C.C.	38
No. visits to cr. ch.	351
No. ch. seen in d. cl.	1,591
No. ch. treated for:	
a. Hookworm	96
b. Ascaris	570
c. Pinworms	92
d. Giardia	56

Hearing tests	156
No.ch.insp.of hd. lice	93
No. pos. found	1
Referrals to DMC	845
Referrals to Pvt. Phy.	371

Schools outside the Jacksonville city limits but within the county (and so included in the Duval County school system) received health services from the county health department. While the county nurses appeared to be over extended in comparison to the city nurses, perhaps due to the much increased geography and a higher population/nurse ratio, the following statistics for 1964 (the last county health department annual report available) clearly indicate an active attempt to conduct some health service program in the schools.

Teacher-Nurse Conferences	1,482
Vision Screening	4,218
Referred for Treatment	685
Dental Screening	1,085
Referred for Treatment	969
Ringworm-Impetigo Screening	663
Referred for Treatment	83
Sanitation Inspections	212

These statistics of city and county health department involvement in school health services, however, should not be misconstrued. The previously mentioned Peabody report accurately states that "the county health and county school departments appear to go their separate ways, with little or no coordination of effort."* For example, no immunization program was indicated and any program to assure a pre-school medical examination was absent. What health service program there is is due to conscientious over-extended nurses who work in the schools of their separate jurisdictions as they are able. Certainly, for a school population of 116,674 what the nurses can do without administrative direction from school authorities can only be minimal.

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*Division of Surveys and Field Services, George Peabody College for Teachers, Duval County, Florida Public Schools, A Survey Report, 1965, George Peabody College Press, p. 133.

As indicated earlier, operation and maintenance of the Duval County school buildings was carried out in 1966-67 with an average expenditure of $55.63 per pupil. This sum of money is not in especially severe contrast to the sum spent by Denver ($69.25 per pupil) and yet a personal visit to schools in the two districts revealed wide differences. Again the Peabody report stated the problem well.

> "The greatest hindrance to a really effective health and safety education program, unfortunately, is the example set in many schools. No amount of study and discussion about healthful conditions is likely to counteract the impressions gained by having to sit hour after hour, day after day, week after week, and year after year in a school where ventilation and lighting are poor; floors, walls, and windows are dirty; restrooms are unclean and ill-smelling; and safety hazards exist either in the building or out on the playground." *

More will be said about differences in aspects of the healthful environment between the six school districts shortly (Discussion).

Evanston, Illinois. The Evanston community in Illinois is unique among the six that are contained in this study in that two school districts rather than one had to be studied. School district #65 includes 16 schools serving grades K-6 and four junior high schools accommodating grades 7-8. The junior highs are in transition and will eventually include grade six. Approximately 10,000 students were enrolled in school district #65 in 1966-67. School district #202 is housed in the large structure known as Evanston Township High School and accommodates grades 10-12. Total enrollment in the two districts combined was 15,663 in 1966-67.

Since #65 and #202 encompass grades K-12 and are mutually exclusive districts they will be treated as one district whenever possible. Where this is not possible as in the case of parallel positions (i.e. - director of nurses for #65 and director of nurses for #202) the specific district will be indicated.

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*Ibid., p. 120.

In 1966-67 the Evanston schools spent $14,542,464 on the public education of students in grades K-12. With 15,663 students enrolled this represented $922.08 per pupil, better than twice the per capita expenditure of Duval County, Florida school district. Included in this sum was $164,616 for health services or $10.51 per student. The operation and maintenance of the school plant consumed $1,613,146 of the total budget or $103.00 per student. These figures rank well ahead of the other five districts and, as later statistics unfold, they suggest that money is the solution to all problems. Such a conclusion is inevitable but other factors while not of equal importance must accompany the factor of money if an educational program, including the school health program, is to be vibrant, progressive, successful and, most important, relevant to all the students. Without complete elaboration at this point, the Evanston school districts (both #65 and #202) are successful for reasons other than generous public support. This is not to sidestep the fact that a high average per capita income plus a high educational level of the adult population undoubtedly contribute to the "progressiveness" of Evanston schools (innovation requires a few ideas and a lot of money) but all the facets of this "progressiveness" whether or not they are contingent upon money are vitally important and will be considered.

Health instruction is well developed throughout all grades and is in a constant state of updating. The accompanying chart indicates the scope of health instruction for grades K-6. The subject matter areas that are circled represent areas where district wide units have recently been developed and all teachers throughout the district are teaching similar material that is progressive and attuned to the needs of Evanston children. Beyond these major units all teachers are encouraged to include instruction in those subject matter areas where an uncircled "X" appears.

At the junior high level there was no direct health instruction during and prior to 1966-67. In 1966-67, however, a committee under the chairmanship of one of the junior high principals and including ten members representing a cross section of instructional areas, grade levels, professional levels (the director of curriculum and instructional service was an active member) and schools met monthly with the charge to develop a scope and sequence in health instruction for grades 6-8. The results are not yet in, but a curriculum will be developed and the void between elementary grades and high school which now exists will be filled.

EVANSTON HEALTH, SAFETY AND HUMAN BEHAVIOR CURRICULUM-GRADES K-6

SCOPE CHART

Ⓧ Major Unit

TOPIC	Kdgn.	1	2	3	4	5	6
Alcohol, Drugs, Tobacco					X		Ⓧ
Body Structure	X	Ⓧ			Muscular X Skeletal X	Digestive Ⓧ Circulatory X Reproductive Ⓧ	Nervous Ⓧ Respiratory Ⓧ
Ears		X	X		Ⓧ		
Eyes			X		Ⓧ		X
Nose		X		Ⓧ			
Nutrition	Ⓧ		Ⓧ	X		Ⓧ	
Prevention and Control of Disease	X			X			Ⓧ
Teeth and Dental Care		X		Ⓧ			X
Sleep, Rest and Physical Activity	X	Ⓧ	Ⓧ	X	X	X	X
Cleanliness and Good Grooming	X	X	X	X	X	X	X
Human Behavior	X	X	X	X	X	X	X
Safety	X	X	X	X	X	X	X

Senior high school students at ETHS must complete successfully one semester in health education to graduate. This course is given during either semester of a student's junior year and carries one-half unit of credit. The class meets daily for 40 minutes in place of the regular physical education class and follows a well developed curriculum outline that includes mental and emotional health (9½ weeks), preventive medicine (3 weeks), consumer education (2 weeks), first aid (2 weeks), and nutrition (1 week).

Health services in Evanston schools are tightly organized within a philosophy that encourages acceptance of individual responsibility for health improvement. Major emphases of the program fall into the traditional areas as recommended by the NEA-AMA Joint Committee. These include health appraisal, health counseling and correction of defects, assistance with handicapped students' programs, prevention and control of communicable disease, health teaching and consultation in health education and other areas, and emergency care of illness and injuries. In 1966-67 added emphasis was placed on the coordination of the health service program with other programs particularly health education, social service and guidance. The fact that this emphasis was not too well received by some representatives of the other programs concerned created difficulty and frustration for health service personnel and reduced the benefits that might otherwise have accrued. Evanston's problems in this regard are in contrast to the Tacoma situation; these comparative differences will be discussed briefly later (Page 64).

A physician serves the elementary schools on a part-time consultative basis and a second physician performs a similar function at the senior high school level. In addition, the Evanston North-Shore public health officer is available for consultation and averages a part of two afternoons each week at ETHS. Eighteen nurses (14 in #65 and 4 in #202) carry out the health service program. All schools are thus either blessed with a full time nurse or share one with a second school in the immediate vicinity. To be employed by the Evanston board of education a nurse must have graduated from an accredited school of nursing, must be a professional registered nurse, and must hold a baccalaureate degree or obtain one within a specified period of time. Since nurses are on the teachers' salary and increment schedule and their employment in Evanston tends to be long term the average salary for the nursing staff is quite high. This fact more than any other accounts for the high per pupil expenditure for health services referred to earlier.

Support of the educational establishment in Evanston is such that no single aspect of the program is neglected. Plant operation and maintenance, an aspect that could easily be depreciated, provides an example of this all-inclusive support. An average pupil expenditure of $103.00 in 1966-67 resulted in well kept buildings that would pass the most severe examination of any outside study team. As with the nurses, most of the maintenance and custodial staff have had long tenure in their jobs. Average income for this group of employees is in excess of $6,000 a year and average age of employee is just under 50.

Portland, Oregon. The Portland school district includes not only the schools within the City of Portland but 14 additional schools located outside the city limits but within Multnomah County. This fact has created a variety of problems over the years some of which continue to persist even today.

In 1966-67 a total of $45,005,598 was spent by the Portland school district to educate 78,633 students. This sum amounted to an expenditure of $572.35 per student. School health services received $116,755 or $1.48 per student. Since this sum was transferred to the City of Portland health department budget, and for the most part ($110,000) was credited to the nursing program, it represents the purchase of nursing services by the school board. Operation and maintenance of plant was allocated $6,619,055 or $84.17 per student.

During the 1940's and 50's the central administrative staff of the Portland school district included a supervisor of health education. The person who occupied this position was knowledgeable, forceful, and energetic and as a consequence a series of curriculum guides in health were developed that were used throughout the district. These guides were especially good at the elementary level (grades 1-8) and health instruction flourished under the insistent guidance of a full time overseer. In the early 60's upon the retirement of this supervisor the position was eliminated and her responsibilities were transferred to another equally competent but now over extended supervisor. Thus, health instruction in the last few years has ridden the slowly receding swell which had been developed by the first mentioned supervisor, and while recent guidance by the present supervisor (carrying the title of supervisor of health and physical education but forced by specific programs to devote the largest portion of her time to girls physical education, grades 1-12) has been heroic, her total impact in behalf of health instruction has been much reduced.

Fortunately, this loss of influence has been partially compensated for by the revision and publication in 1965 of the Oregon state department of education guide for health instruction.

In 1958 a committee was appointed by the Oregon commissioner of education to revise the state health education guide. The committee was comprised of public school teachers and administrators, college and university personnel, and representatives from the state departments of public health and education. The present supervisor of health and physical education of the Portland school district was a member of this committee. As a consequence of her work and involvement with this group she was able to update the Portland curriculum materials in a broad way through the adoption of the scope and sequence chart developed by the state committee. Implementing the subject matter recommendations of this chart, however, has been a difficult task and it is here that the supervisor's divided responsibility has made it near impossible for her to sustain district wide interest and attention to health instruction.

Health instruction in grades K-12 tends to be spotty. In grades K-3 it is integrated with the social studies material although the scope and sequence emphases are encouraged as much as possible. In grades 4-8 separate units are used (the units developed by the now retired supervisor remain in use by many teachers) but the time spent is up to the individual teacher. Two patterns of health instruction at these grades prevail: some teachers allot two periods a week to health; others will have a daily period to the completion of each unit. All high school students receive 18 weeks (five days a week) of direct health instruction in the 10th grade. This consists of six weeks of driver education and 12 weeks divided according to individual teacher option. The accompanying chart is an estimate of how the several Portland high schools utilized the 60 class periods in 1965-66.

In 1966-67 three committees of three members each were active revising the units in Safety, Personal and Community Health, and Driver Education. A fourth committee of representatives from all subject matter areas was busy in the development of a sex education unit.

Thus, it appears that while undivided attention to health education suffered by an administrative decision to cut back personnel, health instruction continues to be recognized as an important element of the educational menu.

An estimate of class periods spent on various health topics in the high schools of Portland School District, 1965-66.

	Benson	Cleveland	Franklin	Girls Poly*	Grant	Jefferson#	Lincoln	Madison	Marshall+	Roosevelt	Washington	Wilson
PERSONAL HEALTH												
Structure and Function	7	10	10		11		5			10	6	7
Dental Health	1	2	2		2			2		1	1	
Nutrition	4	3	2		3			2		5	3	1
Exercise and Rest	2	3	2		2			2		2	3	1
Personality and Character	2	5	10		10		10	9	5	5	10	22
Alcohol, Tobacco, Narcotics	3	10	10	9	5		25	13	5	10	13	11
Sex Education and Heredity	3	4	5		5		15	10	8	10	6	10
Choice & Use of Health Service	1	1			2			1		1	2	
Others:												
Retardation-Birth Defects								2				
COMMUNITY HEALTH												
Prevention and Control Communicable Disease	3	3	3	2	6		5	2	6	2		2
Prevention and Control Non-Communicable Disease	2	4	3		5			2	6	3		
Environmental Hazards					1			1				
Community Health Services and Agencies	1		1		3			1		1	2	2
SAFETY, FIRST AID, EMERGENCY PROCEDURES												
Home, School, Community	1		2	2	1			3			2	2
Recreational				1	2							
First Aid and/or Medical Self Help	30	15	10	13	2			9	8	10	12	2
Disaster Preparedness				3				1				

*30 hours only
#not turned in
+flexible scheduling

The question of school health services for students in Portland School District No. 1 - that is, what these services should be, and what body should finance and administrate them - has generated considerable controversy over the last decade with the final verdict not yet in.

In recent times the cornerstone of programing in school health services was laid in 1954. On February 2 of that year the Committee on School Health Services in the Portland public schools of the Multnomah County medical society submitted a series of recommendations to the Portland bureau of health and the Portland public schools. This report made specific and exhaustive recommendations in the areas of visual status, auditory status, mental health, health counseling and follow-up, special health problems, communicable disease control, school sanitation, health service in physical education, health of school personnel, and problems of plant equipment and future planning in relation to health. Throughout the '50's these recommendations guided the Portland bureau of health (under contract with and financed by transfer of funds from the Portland public schools) and the Multnomah health department (for those 14 schools outside city limits but within the school district) in the conduct of the school health service program.

In 1960 the school budget received a series of committee and electorate setbacks and in May, when it was finally approved by a community vote, the health service program had been eliminated. Part of the rationale for eliminating health services rested in the fact that since the Portland bureau of health was responsible for administering this segment of the school program, it was argued that financial support should come from this source also. In September when the absence of health services in the schools became obvious to parents a ground swell of opinion was generated for reinstatement of the program, and a special levy was passed in early 1961 that provided sufficient funds to accomplish this. However, the problem of who should finance and administer the program was not resolved.

On March 20, 1961 the superintendent of schools expressed the position of his administration to the board of education as follows:

> "The question of how School Health Services should be provided in any metropolitan school district is not easily answered. In Portland there are some circumstances peculiar to the local situation which complicate the problem even more. The most obvious is the fact that

School District Number One is served by two different health departments, one of which receives better financial support than the other. Another complicating factor is the dual support (city and school district) which up to this year one of these health departments has received. There is no unanimity among professionals regarding what type of organization of school health services is most desirable. In the report of a joint study, School Health Services, prepared by the National Education Association in 1953, three chief types are indicated with reference to administration. By far the predominate type is by boards of education; second, jointly by boards of education and health departments; and third, by health departments. This study notes also that joint administration is on the increase. It does not necessarily follow that the best type of administrative control is by school district alone because it is the most frequent. The reason for the frequency of school board operation is chiefly historical. The large school districts early assumed this responsibility because health departments were not providing adequate services.

"The Committee on School Health of the Multnomah County Medical Society which made a study in 1953-54, at the request of the Board of Education, states". . . that accepted principles of administration demand that control of school health services be under single rather than divided administrative authority." The report assumed that this authority should be the Board of Health. With this, we agree. The Committee, however, went on to recommend joint financial support by the Health Department and the schools. With this, we cannot agree. It is common sense that in an operation as extensive as this, financial responsibility should go hand in hand with administrative control. We believe that it is a reasonable assumption that when the support of health services comes from two taxing bodies, neither will have a compelling responsibility for the program. Providing for health services should be the unique function of the health department just as providing for educational services is the unique function of the schools.

"School health services should be related to the total program of health services for the whole community. Health problems continue throughout the entire span of life. In working with health problems of school-age children, communicable disease control, etc., nurses must make many contacts with persons and agencies outside the school. Giving a public health nurse responsibility for a neighborhood of appropriate size, including school health, undoubtedly will result in better coordination and greater efficiency than is possible if one nurse handles school problems only and another non-school problems. The greatest weakness in the services formerly provided for the School District by the City Bureau of Health grew out of the inadequate number of nurses available to serve the schools. It should be noted, also, that the school, with its roots penetrating the entire community, serves as a good base for health services. In the light of the above considerations, it is our opinion that provision for public health services, of which school health services are a part, is the primary responsibility of the Public Health Department. It is our opinion, also, that the financial support of public health services, including school health services, in the long range should be borne by the political unit or units having jurisdiction over the territory constituting the school district. However, as a matter of expediency and to insure better health services immediately, the school district would be justified in temporarily renewing its subsidy for health services. If such action is taken, it should be done with the following definite commitments:

1. That some overall plan of support for school health services be agreed upon by the county and city that would insure (a) equal health services for all of the schools, public and private, in the entire county, including School District Number One, and (b) if there is divided responsibility between city and county all of the schools in School District Number One should be served by one health department.

2. That a schedule not to exceed five years be established, which would result in the gradual withdrawal of school district support for health services and the assumption of such support by the appropriate governmental body.

"It is the responsibility of both public health agencies and the schools served by them to give each other the utmost cooperation. This requires continual consultation and readjustment. It should be noted and emphasized that the relationships between the health departments and the schools have been most cordial and cooperative. This was true when School District Number One had all of its contacts with the City Bureau of Health just as it is now when part of the schools (14) receive their health services from the County Health Department and the remainder get such services as they do receive through the City Bureau of Health.

"To summarize:

1. School health services cannot be separated from community health services. They go hand in hand and the school actually provides an advantageous base from which to operate a complete health program for the community.

2. The providing of health services is the unique function of a health department.

3. A school-district-operated program cannot avoid duplication.

4. The financial support should come from the governmental unit responsible for the services.

5. All schools in any school district should be served by a single health unit."

The position taken by the superintendent was endorsed by the Multnomah County medical society and a resolution to this effect was forwarded to the board of education on April 19, 1961. What may seem like a relatively small problem, however, was not easily solved. Inherent in the issue were city-county boundaries and school district taxing units that did not coincide, and, at another level of funding and politics, two health departments which knowledgeable citizens felt were duplicating services. A progress report on the restoration of health services made before the Portland PTA countil on February 27, 1962 by the board of education chairman, Mrs. Mary Rieke, summarizes events up to that date.

> "It is important to remember that intensive study by the professional staff preceded the restoration of health services to the budget of the Portland Public Schools. Recommendations,

of the staff, and the intent of the board in adopting the recommendations, was to improve the health services available to all school children in this area.

"The recommendations specified that immediate plans for reinstatement of the 1961-62 health services should be measured for adaptability to these eventual goals:

1. To bring administration and financial support of health services under a single administrative authority.
2. To recognize the good base for community health services provided in the schools, and seek to avoid, if possible, the inevitable duplication in a school-district-operated program.
3. To bring all schools within District No. 1, both public and private, under the service of one health department.
4. To bring dental health services into the program as an integral part of total school health services. (Dental health education will be, hereafter, presented as an integral part of the total health education curriculum in the schools.)
5. Provide arrangements for decreasing participation by the School District if a health department provides services.

"On May 16, 1961, members of the school administration and Board met with officials of the City and County.

"This meeting concluded with agreement that:

1. The schools would provide funds for health services in schools within the city limits for the period of one year, the City Bureau of Health to provide these services.
2. The services for city schools would be patterned after the services provided by the County Health Department to schools outside the city limits during the last school year. Thus, all schools within District No. 1 would receive the same services.
3. The County Health Department would continue to serve the Portland Public Schools which are located outside of the city limits. This service did not require reimbursement by the district.

4. An interim committee of representatives from the Board, City Officials, and County officials would meet at the call of the Mayor during this last school year, to work toward a plan for unification recommendations to be forthcoming prior to budget construction by all three groups for 1962-63.

"During this last year, all participating groups agreed to invoke a service which may be performed by the Multnomah County Tax Supervising and Conservation Commission. At our request, they called a public meeting at which the three groups discussed various matters pertaining to health services in the community. At this meeting, December 8, 1962, the Commission agreed to undertake a study and make recommendations.

"Report of this activity is contained in the following letter from the Executive Secretary of the Tax Supervising and Conservation Commission, dated February 23, 1962:

"To: Board of Directors, School District No. 1, Portland, Oregon

"Gentlemen:

"As agreed at the meeting held December 8, 1961, called for purposes of discussing health services in the schools and community, this Commission is undertaking a study of the subject with a view of making a recommendation some time this fall.

"At the request of this Commission, an advisory committee has been set up, made up of personnel from the State Board of Health, headed by Dr. Samuel B. Osgood, Director of Local Health Services Division.

"This Commission regrets that it can recommend no change in the present procedure for the 1962-63 fiscal year, but feels that a better recommendation can be made if sufficient time is taken to make a thorough study which could affect the budget for the 1963-64 fiscal year.

Very truly yours,
TAX SUPERVISING AND
CONSERVATION COMMISSION
Walter L. Smith
Executive Secretary"

"The Community Council, the Multonomah County Medical Society, and the Dental Society have been kept informed of developments, and consulted from time to time.

"Report of progress in regard to dental health services has been requested by your PTA Portland Council President. Plans for dental health services are presently under consideration by the Dental Society, and no report is presently available. If such a department is established, requests for funds could then be considered by the Board and, if granted, would undoubtedly be provided on a basis of gradual withdrawal as is done in regard to the other school health services. The Board will continue to make the dental clinics available.

"Plans for dental health services are slow to develop. It is possible that the long participation by the school district has served to obscure recognition that such service was not available to all children. Two additional factors have contributed to the complexities inherent in reaching toward an improved service for all school children:

1. The dental service provided treatment for dental diseases and malformations found in children whose families were judged unable to pay for such treatment. Other health services did not include treatment, and new resources for this type of care, therefore, did not have to be established.

2. The school dental services division was autonomous, operated independently of the medical direction provided under our cooperative plan with the city health department. In considering possible solutions for dental health services available to all school children in the district, this represents a qualifying factor, and is under study by the Dental Society."

The Multnomah County Tax Supervising and Conservation Commision obtained the services of the Oregon state board of health to study the public health services within the City of Portland and in Multnomah County and to make recommendations for change. This was done and reported back to the commission on December 26, 1962. The major recommendations contained in this report* were the following:

"It is recommended that:

"1. The entire tax supported public health organization within Multnomah County, Multnomah County Health Division, Multnomah County School Health Agency, Multnomah County Convalescent Hospital, Portland Bureau of Health, Portland Bureau of Insect Control, be placed under the direction of a single public health trained and experienced medical health officer.

"2. The Multnomah County Board of Commissioners place on the ballot a proposal for a voted Board of Health for Multnomah County under ORS 431.412. A combined City-County Health Department should be organized under this board.

"3. All personnel employed by either the existing separate health agencies or the proposed combined City-County Health Department be under the State Merit System.

"4. The public health agency be operated on the basis of a program budget including the use of a system of fiscal controls which identifies all receipts and expenditures attributable to individual program operations.

"5. Full-time professional direction be provided for at least the following major units of the combined agency:

A. Administration of all medical services.
B. Administration of all environmental health services.
C. Administration of all supporting (staff) services.
D. An administrative unit responsible for control of infections.
E. An administrative unit responsible for maternal and child health (including health services for the school age child).
F. An administrative unit responsible for adult health (including occupational health, radiologic health, emergency medical services, chronic disease control and medical rehabilitation).
G. An administrative unit responsible for mental health.
H. An administrative unit responsible for dental health.

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*Oregon State Board of Health, An Evaluation with Recommendations: Public Health Services in Multnomah County and Portland, Oregon, 1962, The Department.

I. An administrative unit responsible for milk, meat, other food sanitation and Veterinary aspects of human disease control.
J. An administrative unit responsible for air and water quality control.
K. An administrative unit responsible for vector control, refuse and garbage disposal, and nuisance complaints.
L. An administrative unit responsible for the sanitation program covering industrial premises, school premises, care facilities, outdoor recreational facilities, tourist and travelers facilities, and multiple dwellings.
M. An administrative unit responsible for all nursing services.
N. An administrative unit responsible for public health laboratory services.
O. An administrative unit responsible for fiscal, property control, purchasing and supply services.
P. An administrative unit responsible for personnel, training, research, evaluation and statistical services.
Q. An administrative unit responsible for health education, public information, and community organization.
R. An administrative unit responsible for medical aspects of civil defense and health mobilization.

"6. A central City-County Health Center be conveniently located and constructed on an appropriate site adequate to house and facilitate the operation and administration of the proposed City-County Health Department, including the provision for emergency medical services. In addition, there is forseen the establishment of a decentralized system of district offices for field and other operational purposes in order to more efficiently provide public health services.

"7. Essentials for providing an educational experience for professional students be included in the overall planning.

"8. The health agency and the schools jointly develop overall plans for the financing and administration of health activities within the school.

"9. There be established a single unit for combined coordinated nursing service within Multnomah County and that the Board of Visiting Nurse Association be asked to suggest means by which the program and personnel of the Visiting Nurse Association could best be included.

"10. Legal counsel be employed to study and research the legal and legislative procedures that may be required to implement the recommendations embodied in this report."

So, the problems of the school health service program were viewed as only one part, and a small part at that, of the much larger community health problem. Little more has been accomplished on the school scene since that date. The budgetary transfer continues to be made, and, disconcertingly to the city health officer, has not been increased even though numbers of students and costs of program have. Today, the issue is being waged at the city and county commissioners' level and at stake is the consolidation of the two political units. Until the higher authority determines the outcome of this larger issue, school health services will be maintained at their present level. Fortunately, when compared to many other programs, including some in this study, the Portland school district must live with a status quo that is quite palatable.

Prince George's County, Maryland. The Prince George's school district is the largest of the six districts included in this study and ranks quite high among the 20 largest systems in the country. In 1966-67 a sum of $72,679,581 was spent on education; with an all time high enrollment of 125,247 this represented an outlay of $580.29 for each student. The school health services were allowed $389,952 or $3.11 per pupil. Operation and maintenance of plant consumed $8,742,943 of the budget or $69.80 per pupil.

The functional head of the school health program in the Prince George's schools resides in the supervisor for health education and health services. In her responsibility pertaining to health education at the secondary level she is accountable to the assistant superintendent for secondary education, while at the elementary level she is accountable to the assistant superintendent for elementary education. Since there is no state requirement covering the teaching of health in Maryland schools, health instruction by way of planned units and scheduled class periods has been minimal or absent, and administrative conflicts, including competition for the supervisor's time, have been of no consequence. However, in the last three years the supervisor has initiated and participated in the development of health curriculum units for the elementary grades. This fact of progress plus a similar move at the secondary level, both brought on because of standards set by the Middle States Association of Colleges and Secondary Schools affecting all schools in Maryland, has overextended the supervisor of health education and health services.

In her responsibilities pertaining to health services the supervisor is accountable to the director of pupil services. These, added to her health instruction responsibilities, appear to be overwhelming and well they may be. On the other hand, the arrangement that exists places the supervisor of health education and health services in a position which approximates that of a school health program coordinator, and in theory, at least, presents her with one of the few opportunities currently existing in this country to effectively integrate these two aspects of the program. As this is written the prospect of adding an assistant with full time responsibilities for health instruction is being considered. If this should occur, thus reducing the span of direct influence of the supervisor while retaining her overall influence in both health instruction and health services, the school district, and more importantly, the students will reap great benefit. The fact that the supervisor now reports to three administrators may be a blessing in disguise, and functional administration, a la the Taylor model, has a real opportunity to flourish. The prospects inherent in this situation will be discussed in further detail shortly.

It is interesting that a history of the school health program developed by the present supervisor presents a picture that reflects the careful coordination and integration of health instruction and health services. Important milestones from this history are included here.

There is no record of any school health program before 1921. At this time a school nurse was employed by the board of education. In 1925 a second nurse was employed in the county by the state department of health and the supervision placed under a part-time health officer who carried Prince George's and Montgomery Counties. In 1927 the first full time health officer was appointed and the work in school health services was carried on by that department.

In 1946 the county tuberculosis association offered to finance a position in the board of education of a supervisor of health education. This was accepted by the board of education and the position was established. The county tuberculosis association assumed this responsibility.

A survey was made in the spring of 1947 of the school health program in the existing 84 schools. It revealed that there was little more than an attempt by the county health department to conduct immunization clinics for smallpox and diphtheria and inspections for scalp conditions. The Lion's Clubs conducted vision screening in some areas with volunteers using a Massachusetts Vision Kit purchased by the Hyattsville Lions Club. The American Legion Auxiliary screened for hearing with an audiometer in some of the urban areas. The Parent-Teachers organizations established summer round-up programs in some areas. There is no evidence that any of these were done annually or were county-wide in coverage.

The first efforts of the new supervisor of health education, Mrs. Leo Gleaves, were directed toward better coordination of the existing programs, then to attempt to enforce a state regulation requiring chest x-rays of teachers. Health materials were collected and distributed to teachers and some talks made to parents, teachers and students. A token school health council was established. Mrs. Gleaves resigned the position in October, 1948. The present supervisor of health education and health services came to the position in February, 1949.

Since 1949 there have been many additions to the health services staff, new programs established, and, quite recently, progressive steps in health curriculum development. A summary of these developments prepared by the second and current supervisor of health education and health services is contained in these 29 points.

1950 1. Written policies and procedures for first-aid care, accident reporting, immunization procedures, control of communicable diseases, etc.

2. Stabilization and enforcement of state regulations in regard to health certificates for all school personnel.

3. Setting-up of comprehensive and extensive individual health record forms for students.

1951 4. Provision for a health room in construction of all new schools beginning about 1951. There was also renovation and provision where possible for health rooms in schools built previously to 1951.

1950-1 5. Initiation of chest x-rays for 9th and 12th grade students and school personnel with the state mobile unit. This was changed to a tuberculin testing program by the county health department in September, 1958. At this time the county tuberculosis assiciation began the sponsorship of a mobile x-ray unit for community use.

1952 6. Establishment of a school advisory committee from the county medical society, June, 1952.

7. Institution of an accident reporting system from schools to the board of education.

8. Establishment of a county-wide program of vision and hearing screening with trained technicians.

9. A voluntary accident insurance plan for students was offered to parents with the beginning of the school year 1952-3.

1953 10. Establishment of an annual diabetes detection program for secondary school students and school personnel.

1954-5 11. Establishment of a resident nurse in each secondary school at the beginning of the school year in 1954-5. Under the program an extensive development of the future nurses clubs has taken place.

12. Furnishing by the central office of all first aid supplies and equipment for secondary schools beginning in 1954-5. To the elementary schools starting 1961-62.

1956-7 13. Broadening of school health council into a larger group known as the County PTA health committee operating under the PTA county council. Meetings held monthly.

14. Establishment of a county-wide school dental program under the direction of the county health department - 1957.

This was made possible through extensive support of the southern Maryland dental society.

A county school dental committee was set up to support the school dental program, October, 1957.

1957-8 15. A central office staff position of coordinator of safety activities was set up in 1957-8.

16. All health program written policies and procedures were

incorporated into a teacher's health handbook which was printed and distributed to school personnel beginning in 1958.

17. Color vision screening was added to the vision screening program.

1958-9 18. Extensive promotion and coordination with the county health department to extend the public health nursing coverage to elementary schools in order that regular and frequent schedules might be set up. Began in the fall of 1958-9.

19. Appointment of a coordinator for the school nursing program September, 1958.

20. Beginning of intensified efforts to promote first-aid certification of teachers and students - 1958-9.

1962-3 21. Appointment of a coordinator for the elementary school health service program, Fall, 1962.

1963-4 22. Appointment of first school nurse-health educator in a secondary school, Fall, 1963.

23. Establishing of a county-wide committee on problems of alcohol - tobacco - narcotics, Spring, 1964.

1964-5 24. Appointment of a health education curriculum committee, Spring, 1965.

25. Writing of county's first elementary school health curriculum guide, July, 1965.

26. Holding of county's first first-aid course for school clerks, February, 1965.

1965-6 27. Initiation of first-aid classes for all students in P.E. classes in the senior high schools.

28. Appointment of second and third school nurse-health educator positions in secondary schools.

29. Setting up two special programs of physical examinations for students in cooperation with the county health department.

While the healthful school environment is the direct responsibility of the plant operation and maintenance departments, the supervisor of health education and health services and the county PTA health committee have maintained sincere concern which has been effective. When an unsanitary or unsafe situation comes to the attention of any parent and/or PTA health chairman, the first approach is to the principal in charge. This administrator has the first responsibility for correcting the problem. Occasionally the PTA has become involved as an organization in influencing improvements in the school environment. In addition, the county health department makes a thorough survey of each school every year and shares the results with school administrators including the supervisor of health education and health services. Every three or four months each cafeteria is inspected. A report is forwarded to the board of education specifying (1) conditions of an emergency nature that need correcting immediately, (2) those situations which need to be corrected during the current year, and (3) those improvements which need to be made but are less pressing and may be taken care of when funds permit. As seen earlier plant operation and maintenance consumed $69.80 per pupil in 1966-67.

Tacoma, Washington. In this preliminary and sketchy description of the six selected school districts included in this study it is appropriate that the last of these, Tacoma, contains elements that makes it unique among the half dozen. Most significant is the very real attempt by many of the key school administrators of this district to demonstrate concern for health instruction, health services, and the healthful environment, and to take positive, exploratory steps to effectively integrate all three in order to achieve a school health program that is a functional component on the educational scene. Examples of this concern, that is real administrative decisions to achieve the traditional objectives of school health programing, will be cited in the discussion.

Tacoma spent $22,449,234 on its public school system in 1966-67 or $625.43 for each of the 35,894 pupils enrolled. Of this comparatively large sum, $190,079 was budgeted for health services or $5.30 per pupil. The operation and maintenance of the school plant required $3,229,337 or $89.97 per pupil.

Figure 6 shows that the assistant superintendent for instructional services has on his staff a director of health education. This person, as with all subject matter directors in the Tacoma system, is in a staff relationship and has no direct authoritative influence as such. On the other hand, the position of director of health education dates back to 1955 when the present superintendent arrived on the scene. He created this position and employed an experienced person then on the staff of the county health department, who held a teaching credential and an advanced degree in public health education. Since that time the position has had only the one occupant and her influence in health education, with the recognized encouragement of the superintendent, has been considerable. Despite this support, she is quick to point out that there are soft spots in the district as regards the scope and sequence of health instruction.

At the elementary level the extent of health instruction depends upon the principal, the school nurse, and the classroom teacher. There is no district wide curriculum guide in use and some elementary schools have no health texts. Generally, the primary teachers rise to the challenge of teaching health more effectively than do the intermediate teachers.

At the junior high level, there are nine in the district, the instructional patterns are almost as varied as there are schools: one has physical education in grades 7, 8, and 9 with no health instruction offered; in two, physical education is offered in grades 7 and 8 while at the 9th grade there is a semester of health and one of physical education; in two junior highs, health and physical education are alternated daily for three years; in one, there is nine weeks of health in grades 7-9; in another, health only appears at the 9th grade where it alternates with physical education on a weekly basis throughout the year; in another health and physical education alternate weekly throughout 7th, 8th, and 9th; and in the last junior high health is taught for a semester at the 7th and again at the 9th.

Tacoma was one of the four communities where the trial curriculum materials of the School Health Education Study were field tested during the 1964-65 school year. A consequence of this experience has been the coalescing of opinion among junior high principals regarding the pattern of time allotment for health instruction. As a group they have recommended that one semester of uninterrupted health instruction be required for all students in grade 7 and again in grade 9.

In the four high schools the pattern of health instruction varies from nothing to almost nothing: in one there is none; in another the students may elect a semester of health instruction or psychology at the 12th grade; in the third a popular course called

Bionomics is a full year elective at the 12th grade; and in the last high school at the 10th grade the girls receive 18 weeks of health while the boys receive only 12 weeks.

School health services in the Tacoma public schools are organized within the Division of Pupil Personnel Services. As described in the Directory of Functions, Staff, Referral Procedures and Admission Criteria of the Division of Pupil Personnel Services, December 1965, the function of the Department of Health Services is to promote and protect the health of pupils and staff personnel in the areas of health service, healthful environment and health education. To carry out this task is the responsibility of a medical director and a staff of 26 nurses.

Rather than to describe the detail of program as conducted by the Department of Health Services, it is more appropriate to view the intangibles since it is in this realm that the success of the Tacoma school health program resides. The specifics of programing are little different from thousands of other programs in the country: vision screening is carried on; immunization programs are promoted; medical examinations are given to indigent youngsters; an active referral and follow up program exists. But more than these and the other elements of the action program as well is the atmosphere of administration within which this program is conducted. Excellent relationships exist, without antagonism or jealousy, at all the crucial points of the organizational structure. The director of health services coordinates his program exceptionally well with all the other department heads in the Division of Pupil Personnel Services; this coordination is enhanced by a mutual respect and admiration for the skills possessed by each of the department heads. At another point of relationship in the administrative hierarchy, the director of health services works exceptionally well with the director of health education. Both have a strikingly similar philosophy of the school health program and are able to work cooperatively in the conduct of a program which reflects this philosophy. To be really successful, however, a school health program must reflect satisfactory to excellent relationships throughout the entire school district staff. Without elaborating further at this point, Tacoma demonstrates this all-inclusive rapport in (1) the personage of a superintendent who practices decentralization of authority and (2) the Superintendent's Advisory Health Council. The influence each of these levels of relationship has had will be left to the Discussion.

Findings of the Mail Questionnaire. The questionnaire shown in Appendix A was mailed in early June, 1966 to 321 respondents in the six school districts. The complete returns are shown in Appendix B, Table 5. The presence of a contact person in each community was undoubtedly responsible for the high percentage of returns. Two hundred and seventy questionnaires were returned (84.0%) and 217 were sufficiently complete (67.7%) to justify inclusion in the statistical analysis.

The poor returns from Duval County, Florida, tend to support a number of conclusions which have been developed since that community was visited for the personal interview phase of the study. The initial cause, however, is reflected in the fact that the contact person was not known to the researcher before the study. He accepted the responsibility to give assistance as it was requested of him by a superior, and performed excellently in developing a mailing list. However, a professional-personal relationship between researcher and contact person was unfortunately not established until the field visit to Duval County (Appendix B, Table 7) when subsequent returns of the questionnaire were almost meaningless. In addition, there were other more important reasons which reduced the percentage of returns from Duval County. These are reflected in those questionnaires that were returned and in the findings of the field visit.

Why was a questionnaire returned and yet was unusable? A number of respondents expressed reluctance to give their opinions on matters of administrative concern while others reported an inability to do so. Either of these reasons is perhaps unfortunate (unless the respondent had only recently arrived on the local scene as was the situation with a few), but in itself is a commentary on modern day bureaucratic organizations and some of the people caught up in them.

The 217 usable questionnaires were analysed along two major variables. The primary one is the variable of community; these have been considered in alphabetical order in the previous section and are so shown in all the tabular and figure material. The secondary variable is that of administrative category. If a respondent identified himself as either an elementary or secondary teacher (VII, 1, a or b of questionnaire), he was classified as a teacher (brilliant, what?); if he checked either c, d, e, f, g or l to question VII, 1 of the questionnaire he was defined as a staff administrator; and if he checked h, i or j to the same question, he was defined as a line administrator. Table 6 (Appendix B) summarizes the number of respondents by each of these categories. All subsequent tabular material is based on the numbers shown in Table 6.

Tables 8 and 9 (Appendix B) have been included at this juncture because they relate material already presented (per pupil expenditure for education in 1966-67) to the per capita and per household income for 1966. Often, we tend to believe that a community's actual support of education, however emphatically local patrons might voice a willingness to educate their own, is in direct proportion to its income. Since *local* support for education derives from the personal property tax and/or other local taxing procedures, the hypothesis that support for education is directly related to per capita or per household income certainly can be tested, if only by observation. If the hypothesis tends to hold up, but with some variation it might then be possible to explain this variation in terms of facts known about the different communities/school districts and more specifically the respective administrative hierarchies, both political and educational.

Table 8 shows the per capita and per household income for 1966 of those communities corresponding to the selected school districts. Also included is a per cent break down of households by income groups. Table 9 compares per capita income with per pupil expenditure for education. The rank which each of the six communities holds for these two variables is consistent except for Portland and Tacoma. Where Portland ranks 2nd in per capita income it falls to 5th in per pupil expenditure for education. Conversely, where Tacoma ranks 5th in per capita income it rises to 2nd in per pupil expenditure for education. From the educational vantage point, the impact of this reversal is most clearly seen in the positive atmosphere and programing that prevails in Tacoma. This fact will be alluded to in certain of the tables that follow and in the comparative discussion.

Before Tables 10-29 are analyzed it is necessary to present the rationale behind the use of this questionnaire (Appendix A) in a study of administrative patterns. Inherent in this questionnaire are the assumptions that: 1) knowledgeable professionals will make judgments about the health needs of students, the degree of administrative action manifested to meet these needs, and a number of other related issues; 2) the composite of these judgments will reflect the "true" level of health need and administrative action and that communities can be compared on this basis (even though the respondent group from each community is mutually exclusive) in a meaningful way; and 3) if the sample of questionnaire respondents is large enough and the results are used in conjunction with personal on-site observations, the descriptive and comparative results will contribute to a better understanding of the administration of school health programs. Did the questionnaire hold up as hoped?

Generally speaking, yes; the questionnaire proved itself an excellent research tool. However, it contained a "sand trap" which confused many respondents and as the total picture in each community developed could easily have been left out. Part III is relevant in a study of community power structure, but is absolutely irrelevant to the analysis of a line-staff organization (i.e. school districts). At the time the questionnaire was developed and tested it was felt that this section was needed to identify key people to be interviewed during the field visits. As it turned out the people to be interviewed became all too obvious as the questionnaires were returned and a picture of each community began to develop. Fortunately, the great majority of respondents were interested and involved and total returns were excellent despite Part III, with the exception of Duval County, Florida.

Although referred to at an earlier time, brief mention should be made here of the fact that no attempt has been made to randomize either school district selection or respondents within each district. Generally, the samples of 46-60 respondents in each district were similar but the selection of say elementary teachers or secondary teachers was entirely up to the choice of the six separate contact persons. Recognizing the non-random aspect of the sample, the resulting data is nonetheless treated statistically and the patterns of significant differences that develop are used not as ends in themselves but as contributing elements to the overall discussion.

Three statistical techniques were employed to analyze the data. A small sample t test was used where ever possible. In addition, an analysis of variance was computed for each comparison, and where the F value was significant at the 95 per cent level, the degrees of freedom for the approximate t test were computed using the Satterthwaite approximation. Since, in no instance, was the significance level altered by this technique (Tables 10-24) no further mention of the analysis of variance will be made. Finally, certain data were amenable to Chi-square comparisons, and so this technique was used in the development of Tables 25-29.

Tables 10-14 are based on the answers received to question II. This question is a composite of 12 problems that include concerns of health instruction, services, environment, and general administration. The six alternative choices that a respondent might make to each problem were assigned a value, for coding purposes, ranging from one if immediate action was required to six if it was not considered a problem. Thus, the mean value, seen in Table 10, of 4.4112 for Evanston is the average of all respondents from Evanston (39) on all 12 of the problem areas included in question II.

Table 10, perhaps the most pertinent table to the comparative concerns of this study, indicates perceived differences in the health problems of children between each of the six school districts and erects a rank order for these six districts that is almost consistently followed throughout all subsequent data. Evanston ranks first with a mean score of 4.4112, Duval County ranks last with 3.2345, and each of these districts is significantly different from the other five. The remaining four districts group together with no significant difference between any two of them. A comparison of this data and that contained in Table 9 (Appendix B) will be drawn shortly.

Table 11 is a composite comparison of perceptions held by the three administrative categories. The fact that no significant differences were obtained makes the data of Table 10 interesting by contrast. Viewed together these two tables reveal that while teachers in Evanston and teachers in Duval must differ in their perceptions of existing health problems, as do line administrators and staff personnel in these same two communities, thus producing, in the total, significant differences in the variable of community, these differences are leavened out and become insignificant when the variable is administrative category. Tables 12-14 consider the variable of community and compares in order the perceptions of teachers, staff personnel, and line administrators. The patterns of difference that occur are quite similar to that obtained in Table 10 but are not consistently significant due to the reduced sample sizes and the homogeneous grouping.

Tables 15-19 are based on answers received to question IV. Each of the 12 problems cited in question II was listed again in question IV and the respondents were asked to check the degree of administrative action that, in their opinion, had been exercised to meet and solve these needs in the past three years. A check for "well organized positive action" was coded as a 3, "some activity but undirected" was coded a 2, and "little action and considerable confusion" was coded as a 1.

Table 15 reveals a strikingly similar pattern to Table 10. In those school districts where more serious health problems are perceived to exist there is correspondingly "little action and considerable confusion" to solve these problems. For example, Duval County is significantly different from the other five districts; more health problems are perceived and professionals in the program feel little administrative action is being taken to solve them. Interestingly, Denver has the highest mean score on this question and is significantly different from the other communities with the exceptions of Evanston and Tacoma. Tacoma rises fairly high on this question and reflects the status which the school health program enjoys there. COnversely, Portland falls significantly thus tending to support the more general statistics of Table 9 discussed earlier.

Table 16 repeats the pattern of Table 11. That is, while differences are revealed on the variable of community (Tables 15 and 10) no significant differences are revealed when the variable is professional category, all communities combined (Tables 16 and 11).

Table 17 compares the responses of teachers to question IV in the six school districts. Table 18 makes a similar comparison for staff personnel; Table 19 does so for line administrators. Again, because the samples become necessarily smaller, it is difficult to suggest a constant pattern of response. Of interest, however, is the fact that Denver ranks high in all three of these tables; that is the three professional categories are consistent in their response. Similarly, Duval remains low although the sample of teachers (2) and line administrators (2) is too small to justify giving credence to the statistical differences. Tacoma, on the other hand, ranks quite high in the opinion of teachers and line administrators but low in the opinion of staff personnel.

Question V,1 is summarized in Tables 20-24. This question asked the respondent to estimate the proportion of time devoted to administrative and/or other duties directly related to the health of school children. The coding here was as follows: "None," 1; "less than 10%," 2; "10-25%," 3; "26-50%," 4; "51-75%," 5; "more than 75%," 6. Interpreting this scale, the average score for all Denver respondents of 3.6329 (Table 20) converts to approximately 25% time being devoted to administrative and/or other duties related to the health of school children.

Table 20 shows that, except for the two extreme communities, Denver compared with Duval County, there are no significant differences between school districts. For the first time, however, significant differences between administrative categories are revealed as seen in Table 21. Staff personnel rank themselves considerably higher than the other two categories. Since this group includes nurses, physicians, and supervisors of health instruction, (but not, however, to the complete exclusion of many non-health employees who qualify as staff personnel) the higher time allocation reflects this distribution. Teachers, especially those at the elementary level, believe a larger proportion of their time is devoted to this area than do line administrators.

Tables 22, 23 and 24 reveal differences that are consistently insignificant with the notable exception of the staff personnel of Duval County as seen in Table 23. This group of 17 contains a preponderance of nurses who serve the school health program but are employed by either the City of Jacksonville health department or the Duval County health department. This group was more than willing to report their perceptions of health problems and administrative action being exercised to solve them, but, due to the press of other responsibilities to their immediate employers, were unable to devote a significantly larger proportion of their time to these problems.

In answer to question V,2, "Do health needs of school children demand that you spend more time in this area if you could?," 45 teachers answered "yes" while 25 answered "no." Staff personnel felt even more strongly positive (57 yes, 17 no), while line administrators were evenly split (20 yes, 20 no). The Chi-squares of Table 25 show the staff personnel to be more affirmative than either of the other two administrative categories at statistically significant levels. A strong affirmative position is taken to this question by teachers in Portland, staff personnel in Duval County and Prince George's County and by line administrators in Prince George's County.

Each respondent was asked (Question V,4) if the health needs of school children demanded that his immediate superior spend more time in this area. Table 26 suggests that teachers (46 yes, 29 no) and staff personnel (41 yes and 25 no) would wish their immediate superior to spend more time here than do line administrators (16 yes, and 18 no). The Chi-squares, however, are not significant. Certain sub-groups (teachers in Portland and staff personnel in Duval County) again took a strong affirmative position and to a lesser degree so also did the teachers and line administrators of Prince George's County.

Tables 27-29 are concerned with respondents' perceptions about the financial support which health instruction, health services, and the healthful environment received, as reflected in a single question related to each of these three broad divisions of the school health program.

In answer to the question, "Do you believe health instruction is given its proportionate share of the financial budget for texts, supplementary materials, and supplies?," Table 27 shows that line administrators take a more affirmative position (31 yes and 15 no) than do teachers (39 yes and 38 no) and staff personnel (34 yes and 34 no). Teachers and staff personnel of Prince George's County, and staff personnel of Duval County tend to be predominantly negative on this question while the strongly affirmative sub-groups include all three administrative categories in Evanston, teachers in Tacoma, and line administrators in Denver and Portland.

The question, "Are students deprived of needed health services because of insufficient funds?" (Table 28), demonstrates again the consistency of differences that occurred in some of the earlier data. Most professionals in Evanston feel that their health services are adequate as do those in Denver, but to a slightly less degree. Professionals in Prince George's County and Tacoma generally believe the health service funds to be adequate while the situation in Portland tends toward a perception of insufficient funds for the need and in Duval County opinions move even further in the negative direction.

Finally, Table 29 reveals that with the exception of Duval County the overwhelming number of respondents believed that repair and maintenance of school buildings had been sufficient to keep them from falling into disrepair. The responses from Duval County indicate again the almost deplorable environmental conditions that prevail in many of the school buildings there.

Discussion

"It is impossible to apply any one formula to the solution of all situations. The fact that a pattern works is because the people involved have struggled with it and want to make it work."

This idea was expressed by Mrs. Forrest Raike, a member of the Portland school board and a person who has had considerable personal experience on which to base her opinion. The foundation for her thoughts has already been presented (pages 27-33). Certainly Portland has had a difficult situation and the school health program has received set backs, delays, and frustrations as a consequence. This all too evident fact of problems in the Portland program leads an observer to conclude that "a pattern works" not because people "want to make it work," which may be true in part, but because those people enmeshed in it *have to believe that it works*. Today, the complexity of urban life is so great, and change in administrative relationships is so interminably slow that people in the system, especially those who would like to be action agents if they could, *have* to believe that *their* organization is working, if only for the moment and perhaps at something less than maximum efficiency. Evidence of success may be nothing more than the fact that "school keeps every day" but this fact maintains their enthusiasm and justifies hope that improvement can be achieved.

The Portland situation is far from ideal. Even those involved would agree, and the history of recommendations for change there makes clear the fact that many people feel acutely the need for something different. In general, what this "something" is will always be determined by people of varying influence who interpret present and future program objectives from a perspective of personal education and experiences.

The superintendent in Portland adopted a position (page 27) which he believed would solve the school health services problem, both administratively and financially. He was unable to implement it, however, when the larger problem of political jurisdictions forced the solution of lesser issues to be delayed. But his choice for action was only one of a number which he might have made. He arrived at it as a consequence of his specific experiences over time and his knowledge of that particular situation. His interpretation of the purpose of a school health program and how this purpose could best be achieved also influenced his choice for reorganization. If any of these influencing factors, education, experience or interpretation of objectives, had been different, he might have recommended a different course of action altogether.

In the paragraphs that follow selected elements from each of the six school programs will be compared to show that some are more likely than others to create a smoothly functioning school health program. Beyond these six school districts, others interested in improving their own situations might adapt (not adopt) those elements that hold the greatest promise for them.

The Influence of a Superintendent - Whatever success the Tacoma school health program may enjoy is directly related to at least three key elements. In order these are a visionary superintendent, a functioning Superintendent's Advisory Health Countil (the capital letters are significant), and two skilled professionals of long standing occupancy in their respective positions as director of health services and director of health education.

As already noted the superintendent, a ten year incumbent when this study was conducted, established the position of director of health education soon after his arrival on the scene. Why he did this is unknown beyond the assumption that he must have remembered the objectives of general education as published by the American Council on Education and believed these important enough to be implemented. In defense of all superintendents these objectives are universally accepted, but implementation often escapes many, especially with regard to the school administrator's responsibility for leading the student "to improve and maintain his own health and to take his share of responsibility for protecting the health of others." It is the last aspect of this quoted objective as well as the first which the Tacoma superintendent sought to achieve in creating the position of director of health education and in his subsequent encouragement of complete cooperation and coordination between this position and the director of health services.

The Tacoma Superintendent's Advisory Health Council was organized in 1952. The stated purposes for its organization were:

a. To assist in the coordination of the school health program.
b. To study health education and health services problems of the school system and suggest policies and procedures for their solutions.
c. To serve as a liaison group with the community health council.

In the early years of the council's history membership was small and the primary requisites seemed to be administrative responsibility in some area of school health, representation from health and physical education departments and school nurses, individual interest, and community representation such as the medical society or other related groups. Under the influence of the present superintendent membership now includes representation from the following areas:

a. Administration --
    Elementary, junior and senior high principals
    Central office staff
    Health education and health services
    Lunchroom and maintenance

b. Teachers and other staff --
    Primary, upper elementary, junior high, senior high
    Homemaking, science, health and physical education
    Counselors, pupil personnel, school nurses

c. Community --
    Pierce County medical society - chairman of the school health committee
    Tacoma Council PTA - health chairman

Membership for two years is on a rotating basis with half the council new each year. The superintendent is still the head of the council but all meetings are chaired by another person who is usually an elementary principal. Meetings are held monthly in the central administrative offices.

In the first years, the council was groping for form and function. It served primarily as a meeting place for people with like interests; a means for discussing all kinds of health problems; and a means of disseminating some information on health. In 1953 seven city-wide dental health education workshops were held for teachers, parents and interested community leaders. In 1955 cards to send to physicians regarding excusing students from physical education were developed. The card stated board policy that no student was to be excused, but indicated that restricted programs or rest programs could be substituted. It asked that doctors prescribe the kind of activity program desired.

The present policy and method of operating is to have several subcommittees, each one working on a particular problem. These areas of focus are decided upon by consensus at the first meeting and study reports are presented to the council for recommendation at subsequent meetings.

In the minds of many the value of the council is inestimable. It serves as a means of focusing attention on a problem or problems and rallying support through study and recommendation. The interest of staff and lay persons alike in the health problems of Tacoma children as these relate to and affect their educational achievement has been due in large measure over the years to the Superintendent's Health Advisory Council. In the words of one key administrator, the council "enjoys high stature throughout the district and its recommendations are followed whenever possible."

And the third important element contributing to the success of the Tacoma school health program has been the fact of complete cooperation and integration of instruction and service through the efforts of the director of health education and the director of health services. Perhaps these two positions come closer to being a single position, while still being divided, than any other school district situation in the country. The fact that neither program is as extensive as the respective director would wish is evident, but the added fact of accomplishment over time is a tribute to their patience and perserverance. For example, we have seen that the patterns of health instruction that prevail in Tacoma are several. When asked about this, three top level administrators answered as follows:

> "Our various schools call for different patterns of instruction. This is best decided by each principal and his staff."

> "I'm a believer in the broken-front approach. An entire staff must be committed to a subject matter approach before they will teach it effectively."

> "The School Health Education Study was good but the principals have to accept it individually and sell it to their teachers. The junior high principals are working at this right now."

And working they are. When asked if he thought the new curriculum developed by the School Health Education Study could be incorporated into his schedule, one principal answered:

> "Yes, we can fit anything in that we want to. We have this latitude from central office. But we have to be sure that

its a good product, that our teachers are competent to handle it, and that other equally important areas are not being squeezed."

The task which falls to the director of health education and to the director of health services in the face of this decentralization of authority, where each principal has more than the usual autonomy, is monumental. Gains are made on an individual school basis, with each principal, and through small workshop sessions with teachers. Interestingly, however, teachers and principals in Tacoma were very knowledgeable of the work of both directors, were appreciative of what they were doing for children throughout the district, and desired that their work continue.

In Table 9 it is shown that Tacoma ranks fifth among the six school districts in per capita income for 1966 but rises to second on the basis of per pupil expenditure for education in 1966-67. Some of the reasons for this community support have certainly been identified in this discussion and help to explain Tacoma's relatively high position in Tables 17 and 19 and its middle positioning in most of the other tabular presentations.

In Denver there exists a situation which provides an interesting contrast to that just described. The Denver superintendent has been in his position for almost two decades and has served throughout this period with distinction. Interestingly, he too arrived on the scene with certain convictions regarding aspects of the school health program. His immediately previous experience had been in San Diego where there had been a long tradition of superior school health services. When he assumed the position of Denver superintendent, one of his first goals was to establish a comparable school health service program. Fortunate for him and for Denver, there arrived on the scene a physician who chose Denver as his permanent home and who, for reasons of personal motivation and interest, desired to exercise his skills in public service of some sort. The superintendent asked the physician to become the director of the Denver Public Schools Health Service Department. He accepted and has remained in this role ever since.

Throughout the years this early relationship between the superintendent and physician, stemming from the superintendent's perceived belief in the importance of health service program, has fostered and encouraged a program that today is well financed and well staffed. An interesting note on observed influence was voiced by one administrator:

> "The director of the Health Service Department is under the assistant superintendent for instructional services but in reality he is more directly under the superintendent."

But recognition of this favored position which bypasses to some extent the established organizational pattern does not diminish the immense respect which the Health Service Department enjoys throughout the school district. Certainly this program, already well described (pages 9-14),is an excellent example of what can be achieved under the fortuitious circumstances of a knowledgeable superintendent, a dedicated and innovative physician director, and a steadily increasing budget.

But where health services in Denver come off reasonably well in contrast to Tacoma the prevailing attitudes toward health instruction are something else again. These, too, stem directly from the superintendent who has done far less than the Tacoma superintendent to influence this aspect of the school health program. Where Tacoma has a full time director of health education for 35,894 students, Denver has one person devoting 40 per cent of her time to upgrading health instruction, this for 96,260 students. Organizationally and in fact the health instruction supervisor is responsible in a staff relationship, to the assistant superintendent for instructional services.

The incomplete and undirected nature of health instruction has been pointed out earlier (pages 7-9). In pursuing the reason for this a school board member suggested a partial answer when asked, "What is the place of health instruction in the Denver schools?"

> "One's attitude toward his health is an attitude toward himself. If his attitude is good, it will be reflected in good health attitudes. If the formal education process is good, we don't need health instruction."

This school board member was astute enough to amend his remarks with the following sentence:

> "This is the ideal. Unfortunately, our basic education program is not as good as it needs to be."

His awareness, however, was not shared by several key administrators. When one was asked why health instruction had been deemphasized, he answered:

> "We used to teach character education and saw no results. Money was still taken from lockers, so we did away with the course. Now we teach character education by precept and example. This is the way we should teach health."

"Why not teach it in organized direct health classes?"

> "It's hard to teach health well. The teacher must have dedication and live his subject. The teaching of attitudes is difficult and we lack a core of teachers who can teach at the level necessary. In addition, we have a teacher shortage that would be made more acute if we tried to teach health also."

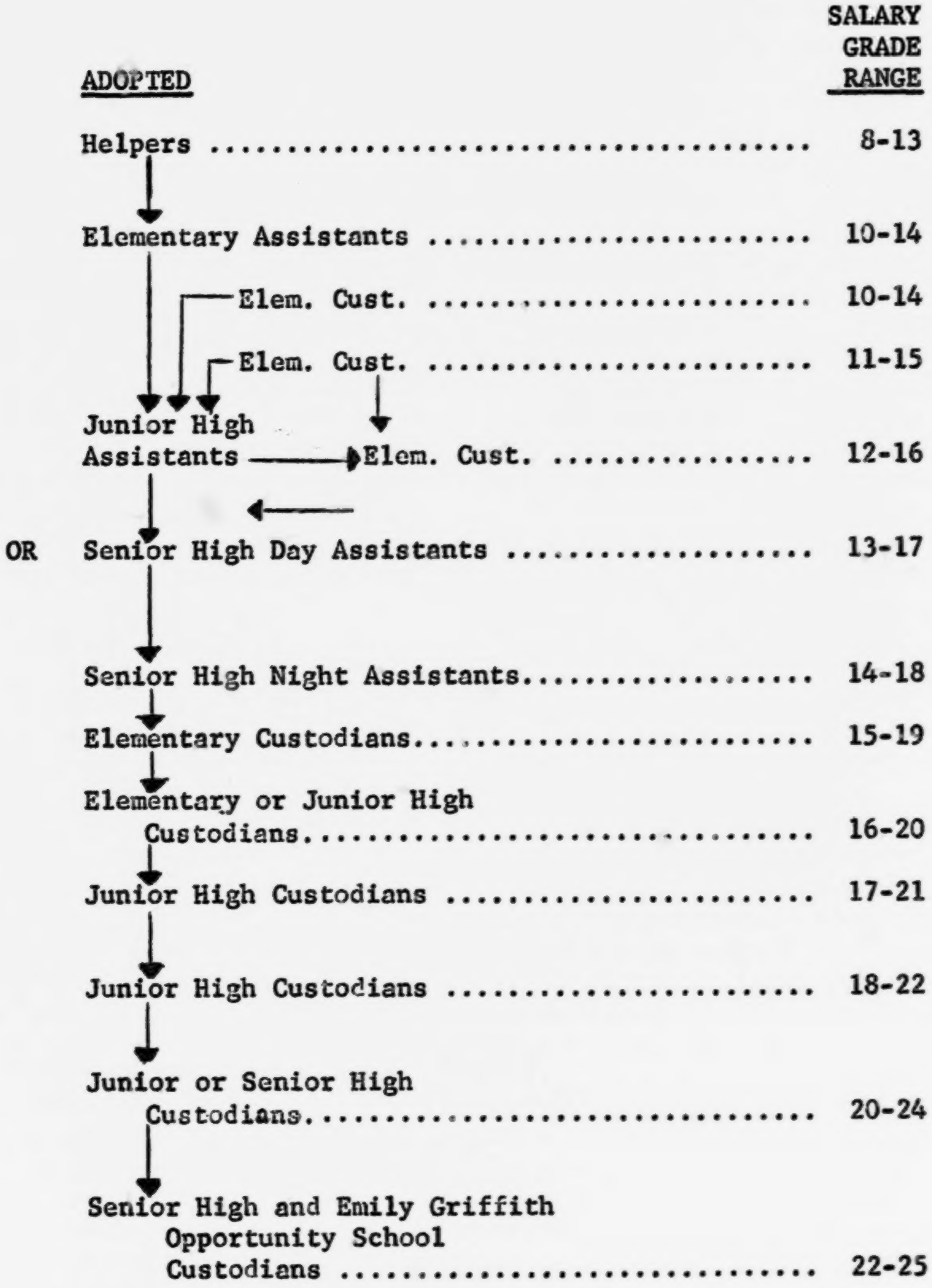
"But you are doing some direct instruction at the junior high level."

> "Yes. We keep the sexes separate and involve our medics at this level - and this is the way I would want it. - We shouldn't have any health instruction at the senior high level, but we do offer it as an elective."

There is no council in the Denver program similar to the Tacoma Superintendent's Advisory Health Council, and the resultant effect which this council has on the Tacoma program is, therefore, not reflected in Denver.

Environment is Important? Perhaps the extremes of concern for the effect of the environment on education are represented, in this study, with Denver at one extreme, the superior one, and Duval County at the other, the decidedly inferior one. The remaining four districts rank close behind Denver in their concern for the environment as seen in Table 29. Of these Evanston and Prince George's are the most positively impressionable with Tacoma and Portland somewhat less satisfactory but far from inadequate in this regard.

In Denver a feeling of pride and esprit-de-corps has been developed among all employees under the assistant superintendent for business services. Two of the many reasons for this are a reasonably high salary schedule and a merit pay scale that encourages additional education with periodic examinations geared to planned advancement. For example, the promotion patterns for operation employees (custodians, assistant custodians, helpers, matrons, sweeper boys, and warehouse personnel) are as follows:



ADOPTED	SALARY GRADE RANGE
Helpers	8-13
Elementary Assistants	10-14
Elem. Cust.	10-14
Elem. Cust.	11-15
Junior High Assistants → Elem. Cust.	12-16
OR Senior High Day Assistants	13-17
Senior High Night Assistants	14-18
Elementary Custodians	15-19
Elementary or Junior High Custodians	16-20
Junior High Custodians	17-21
Junior High Custodians	18-22
Junior or Senior High Custodians	20-24
Senior High and Emily Griffith Opportunity School Custodians	22-25

The corresponding salary range is from $3,720 per year for grade 8 to $7,050 for grade 25. Similar schedules that create incentive also exist for food service, school press, maintenance and transportation personnel.

An alarming contrast to Denver is seen in Duval County where the decrease in per pupil expenditure for operation and maintenance (Table 4) does not begin to reflect the deplorable conditions that become apparent to an observer of both systems. Duval County has no status creating promotion pattern as does Denver, and the salary schedule, while comparable at the lower levels never rises significantly. For example, a custodian starts at $3,796, rises to $3,926 after six months, after one year rises to $4,208 if he passes a utility test, and then receives a $195 increase every five years thereafter. Turnover is high and the maintenance supervisors spend large portions of time hiring and "training" new custodians and maids. This latter group exceeds custodians in absolute number in the Duval system by 50 per cent and is paid even less grandly. But large sums of money are being spent in the Duval system for maintenance and operation, and the obvious conclusion that must be drawn from the deplorable conditions that exist without change is that poor administration and mismanagement prevail.

The earlier quote from the Peabody report (page 17) spoke to the poor hygienic conditions. This problem as well as the scarcity of health services and health instruction are but small elements of a much larger problem that surfaces at the political-fiscal level of Duval County itself. Selected paragraphs from a recent publication highlight this larger problem.

> "The fiscal dependence of the Duval County Board of Education (on the Duval County Budget Commission)led in October 1965 to a clash heard around the state between that county's budget authority and its teachers. With its county seat at Jacksonville, one of the state's three major metropolitan areas, Duval County is relatively high in financial ability - ranking third among Florida counties in per capita personal income during 1964-65 - but ranks sixty-seventh in per pupil expenditure for education, and spends only 1.44 percent of the effective buying income of the people for local public school support. In 1964, because of the inadequacy of public school support in the county, the Florida State Department of Education removed state accreditation from eight Duval schools and placed 37 more on warning status.
>
> "During the same year all 15 of the county's high schools were disaccredited by the Florida Commission of the

Southern Association of Colleges and Schools "because nothing had been done on the local level - after repeated warnings - to solve the problem of inadequate financial support."

"In 1964 and 1965, the Division of Surveys and Field services of the George Peabody College for Teachers, at the request of the Duval County Board of Education, conducted a survey of Duval County public schools. In a digest of the survey report, published in March 1965, the survey team declared -

> . . . Duval County has the substance for good schools - a sound and growing economy, a bustling, progressive atmosphere, and energetic people proud of their community.
>
> BUT amidst the community's prosperity one finds -
> *School poverty
> *Unaccredited high schools
> *Schools controlled by political system of the county
> *Low property taxes resulting from abnormally low effort
> *An industrial policy satisfied with a low-skilled labor force, which is ill-prepared for more technological industrial prospects
> *A citizenry which has not faced the challenge of providing the means of quality education.
>
> AS A RESULT the prestige of public education in Duval County has deteriorated steadily for two generations.
>
> DUVAL COUNTY HAS A LOT OF CATCHING UP TO DO IN EDUCATION.

"In May 1965, it appeared that the "catching up" would soon begin. As noted earlier, a taxpayer's suit against the Duval tax assessor to force compliance with the state's just value law culminated during that month in the landmark Supreme Court decision calling for revaluation of property in all Florida counties at fair market value. The revaluation process in Duval County delayed school budget development for the ensuing year, with the result that the 1965-66 school budget was not presented to the Duval budget commission until October 1965. The school operating budget as proposed by the Board of Education amounted to $50.7 million. It was cut by the budget authority to $43.1 million, pending a public hearing to be held November 19. The budget cut precipitated immediate professional reaction on the part of the Duval County Teachers Association. A public meeting was held, at which time more than 4,000 of the 5,300 teachers in the county voted to invoke professional sanctions, including censure of the budget commission and withdrawal of extracurricular services, the latter to be commenced on October 28, 1965.

"In this instance the teachers were not fighting for a salary increase. Contracts had already been signed for the year and teacher salary increases had been granted, including a raise of the Rank III minimums to $5,000. The budget cut, had it gone through, would have drastically reduced school services, transportation, and supplemental salaries for extra services during the 1965-66 school year.

"Also, in this instance, many organized groups of the community expressed support of the $50.7 million budget. These groups included the Junior and Senior Chambers of Commerce, the League of Women Voters, the County Council of Parents and Teachers, the Duval County Taxpayers Association, and citizens groups for better schools.

"Public support for public education in Duval County was convincingly demonstrated on November 2, 1965, when the full 10-mill district levy was approved by the voters for school years 1966-67 and 1967-68. Immediately following the successful millage election, the teachers suspended their sanctions action pending the November 19 budget hearing for 1965-66. During ensuing weeks efforts to negotiate the budget dispute were assisted by the state superintendent of public instruction, whose efforts as mediator were offered by the governor.

"The outcome of the controversy was a compromise - but one which strongly favored the schools. A 1965-66 budget trimmed by the Board from $50.7 million to $49 million was approved by the Duval County Budget Commission on November 19, 1965." *

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*National Commission on Professional Rights and Responsibilities of the National Education Association of the United States, Florida, A Study of Political Atmosphere as it Affects Public Education, Washington, D.C., March, 1966, National Education Association,pp.48-49.

And so the conditions that prevail in Duval County school district encompass the sputtering school health program. Reciprocally, the school health program is able to exercise little influence, least especially through the "healthful" school environment, on the health and education of Duval County school children.

Who Said, "Health Coordinator?" In 1957 the Florida state department of education passed a regulation requiring all schools to: (1) create the position of health coordinator, and (2) designate the faculty member filling this position as the chairman of all committees giving continuous attention to the improvement of the school health program in his particular school. Thus, Florida was the first state to give official blessing to this long talked of ideal, and since, in Florida, all county health department lines correspond to school district jurisdictions (removing such difficulties as has been seen in Portland), early predictions were that the health coordinator program would flourish. In the years since 1957 the key groups, state department of education, state department of health, and the several state colleges and universities, have combined talent and money to conduct a series of summer institutes to train health coordinators. Despite this decade of stimulation, however, the health coordinator program in Florida is struggling to survive, and in Duval County it is just barely this side of being nonexistent.

The central office of the Duval school district was able to provide a listing of health coordinators in each junior and senior high school. A similar listing for the elementary schools was not available. At the individual school level, however, few principals had accurately defined this person's role or arranged for released time. Even more ironic some principals did not know who their health coordinator was. Comments about the health coordinator situation made by competent, long standing observers included the following:

> "Most principals have not been oriented to the benefits of the program, and they are reluctant to delegate authority."
>
> "Because the administration doesn't recognize and support it, the coordinators don't like it; it's not a satisfying job."
>
> "The district health coordinator has done absolutely nothing to encourage growth of the program. As a consequence, principals know nothing about it and most school health coordinators consider the assignment a chore."

Perhaps the spirit of what the district health coordinator should be to other key administrators in a school district is reflected in Tacoma. The coordination between the director of health education and director of health services has already been cited. Comments by other school personnel as they relate to these two persons are pertinent to this discussion.

> "Our people work cooperatively with the director of health services on very difficult cases. He collects important medical data and communicates with the medical profession for us. As often as four or five times a day we seek his assistance on the interpretation of special reports. ---As another example, he helps us staff the high school vocational guidance clinics, and gives valuable advice on rehabilitation problems.

Tacoma has a well developed social work program as a part of the Department of Special Education. The director of special education spoke about his relationship to health services as follows:

> "The nurses and social workers support each other with little or no duplicating effort. Examples of extensive cooperation between the two groups include orthopedic problems and long term medication problems."

And while principals have great autonomy in Tacoma some of them accept the authority without providing the leadership.

> "We as principals can't do it. If the program (the curriculum developed by the School Health Education Study) is going to be successful, she (the director of health education) will have to sell it to our teachers."

While this last attitude reflects a recognized competency and responsibility of the director of health education as seen by the principal(s), it unfortunately also reflects a hands off policy that very well could be a road to nowhere as far as health instruction is concerned. Happily, at least the junior high principals in Tacoma may be moving to develop a coordinated health instruction program as already pointed out.

Circumstances in Prince George's county, while different from Tacoma in many ways, suggest a similar move toward a form of district level health coordinator position. An examination of the organization chart for the Prince George's County public schools (Fig. 3) will show that there is a supervisor for health instruction under the assistant superintendent for elementary education, another supervisor for health instruction under the assistant superintendent for secondary education and a supervisor for health services under the director of pupil services. Up to the very moment of this writing these three positions have been occupied by the same person.

Recently, the Middle States Accreditation Association has served informal notice on the Maryland state department of education that health instruction in Maryland needed to be upgraded. Anticipating that this advice will soon be a requirement, the state department of education has begun to encourage Maryland school districts to develop a health curriculum, find time for its instruction in the daily schedule, and prepare teachers for this responsibility. Meeting this pressure, the Prince George's school district soon will employ a full time supervisor for elementary and secondary health instruction. Officially, this person will be responsible to the assistant superintendents for elementary and secondary instruction, but more practically he will work with the supervisor of health services for the continued and more complete integration of these two programs. As long as the present supervisor of health services remains on the job her recognized competence assures that she will be able to exercise a functional authority over the new supervisor for health instruction. This can only prove beneficial for the overall school health program, and it is to be hoped that the relationship maintains itself long enough for its value to be observed. If she should leave and a new person were to occupy her present position, the two relatively new incumbents would most likely go their separate ways and the value of integration would be lost.

As events now exist in Prince George's, however, the prospects for curriculum upgrading in health instruction are exciting. Added to this is the fact that a district health coordinator position does exist short of being officially designated as such. Hopefully it will be able to establish itself.

And Money Certainly Helps. One of the fascinating aspects of this study is reflected in the comparison of data contained in Tables 2, 3, 4, 9 and 10 with all that has been said up to the moment about local commitment to the educational process, the varying vision of different superintendents, the attention to environment, the influence of politics, etc. The consistency with which Evanston, Denver, Prince George's County, and Duval County maintain position when Tables 2, 3, and 4 are compared with

Tables 9 and 10 certainly tends to support a thesis that money is related to health: the more a community has and/or spends for education, including aspects of the school health program, the fewer health problems there are. Circumstances as they have been traced in Portland and Tacoma plus the striking reversal in commitment to education by these same two school districts (Table 9) provides additional substantiating information.

It is probably sufficient to conclude, then, without belaboring the point further, that money helps. Beyond its presence as an important community commodity, of course, is the important variable of willingness of the school district patrons to use it toward a purposeful end - in this case the educational process. Duval County has provided an example at one extreme, ranking third among all Florida counties in per capita income yet last in expenditure for education. On the other and upper extreme, Evanston has had the money and has been equivalently generous in supporting education. But perhaps the real expression of positive concern for education is found in Tacoma where proportionately more is spent for education than in the other five communities studied.

- - - - - - - - - - - - - - -

And so, the discussion and with it the main body of this study draws to a close. To terminate at this point, however, is not a sign that everything has been said. It seems as though only the surface has been scratched and in the mountain of data and material that remains much more could yet be mined. But the reader will have been hardy indeed to have survived to this point. The observed picture, as viewed by the researcher, has been difficult to recount in a linear manner, and it is hoped that at least minimal success has been achieved. Certainly, the many incumbents in each of the six school districts who take time to peruse all or part of this report will serve as interested jurors.

The summary, conclusions and recommendations follow.

Summary and Conclusions

The administrative patterns of school health programs are many and varied. A descriptive and comparative analysis of these patterns in six selected school districts has been the primary purpose of this study. A secondary purpose has been to analyze perceptions held by selected respondents within each school district, and to relate differences in these perceptions to the particular administrative patterns present. While this technique is far from precise, it has produced some interesting results.

__Summary__. Two procedures were employed to collect the data. First, in June of 1966 a closed-end interview schedule was mailed to 46-60 respondents in each of the six selected communities. These were, in alphabetical order, Denver (Colorado), Duval County (Florida), Evanston (Illinois), Portland (Oregon), Prince George's County (Maryland), and Tacoma (Washington). Three hundred twenty-one questionnaires were mailed and 217 or 67.7% were returned with sufficient information to be included in the analysis.

Second, each of the six communities was visited by the author and selected school and community persons were interviewed. In all, 155 interviews were conducted.

Analysis of the collected data was accomplished in three stages. In order these were:

1. A narrative description of the school health programs (including health instruction, health services, and healthful environment) in each of the six school districts.

2. A statistical analysis of the mail questionnaire.

3. A comparison of the six programs with emphasis on four major variables which appeared to be the most important in the successful or unsuccessful conduct of each school health program.

__Conclusions__. The four null hypotheses presented in the Introduction will serve as the focal points for the conclusions derived from this study.

1. Quality of school health program is unrelated to administrative organization and relationships.

This hypothesis is rejected on the basis of the statistical evidence and the on-site visitations. The positive climate which exists in both Tacoma (services and instruction) and Denver (services and environment) is directly related to a health program which is enhanced by strong administrative blessing. Similarly, the administrative influence in Evanston has fostered a smoothly functioning school health program, particularly in services, but falls short of Tacoma for reasons of personality differences not previously discussed. In Evanston there has existed for several years a major breech between the key health service administrators and the director of the social services department. This has led to little or no exchange of information between nurses and social workers and much effort has been duplicated as a consequence. On the other hand, the Tacoma situation is an example of excellent cooperation at the top echelon between health service and social work personnel. In this one aspect of program comparison Evanston comes off poorly when compared with Tacoma and supports the hypothesis that relationships do in fact affect quality of program.

The long standing problems of Portland that relate to political jurisdictions, divided authority and responsibility, and a health program (both services and instruction) not adequately supported and stimulated over time contribute to the conviction that the null hypothesis must be rejected. And in a most negative way Duval County can only serve to endorse this position.

2. Quality of school health program is unrelated to source and extent of fiscal support.

The perceived extent of health problems (Table 10), the perceptions about administrative action exercised to solve these problems (Table 15), and the amount of money spent for education (Table 3) and health services (Table 4), all combine to support rejection of this second null hypothesis. In addition, the problems described in Portland, and to a greater degree those in Duval County, emphasize rejection. The quality of the school health program is very decidedly influenced by its source and extent of fiscal support.

In various ways each of the six programs has demonstrated that the extent of fiscal support influences the quality of school health programs. Certainly Denver and Evanston have superior programs to Duval County for reasons which include money. However, to what degree the source of fiscal support influences the program has not been clearly established. Portland has had serious program problems in part because the school district overlaps two health department jurisdictions and health services delivered by these two departments have varied over time. Also, the city-county consolidation issue has affected the school health program detrimentally. The Portland school district transfers a sum of money to the Portland City health department to purchase health services without conferring equivalent administrative authority. More tragically, the Duval County central school administration ignores health services completely and understands almost nothing of what the city and county health departments are trying to do at the individual school level. To a lesser degree the Prince George's County health department also delivers services to some of the county schools, and again weaknesses were identified particularly in the areas of referral and follow up. These examples, and the evident success in Evanston, Denver, and Tacoma suggest that school health programs are more successful when fiscal support and responsibility for administration rests with the schools. But another alternative for organization and division of authority not represented among the six programs studied might prove to be the most successful. Reference to this is made in the third recommendation on page 67.

3. Maintenance of and/or improvement in student health is unrelated to administrative organization and relationships.

As with the first two this third null hypothesis is also rejected, although the evidence here is not as conclusive. Identification of the level of student health has been done through perceptions of line and staff personnel in each of the six school districts. While significant differences have been identified (Table 10) this procedure is "quick and dirty" at best. Nonetheless, the method may be valid. If so, and within the context of this study the assumption has been that it is, then the discussion has shown that administrative organization and relationships are directly related to the maintenance of and improvement in student health.

4. Effective integration of the three phases of the school health program (instruction, services, environment) is unrelated to administrative organization and relationships.

And finally the last null hypothesis is rejected along with the others. Organization and relationships are inexorably entwined as the discussion of the influence of superintendents has demonstrated. Where the superintendent's influence stimulates any part of the school health program (Denver) or all of it (Tacoma, and to a lesser degree Evanston and Prince George's) those directly responsible for the school health program are able to exert a corresponding influence to integrate health instruction, health services, and healthful environment. This fact has been demonstrated in the health coordinator discussion.

Recommendations

At the risk of over simplification but for the purpose of emhpasizing what appears to be most important, this study concludes with four recommendations.

1. A course in the administration of school health programs should be included among the requirements for a credential in public school superintendency. Without this orientation few superintendents truly appreciate the vital relationship between health and education and even fewer adequately administer their school health program.

2. Every school district must maintain constant and continued attention to the healthful school environment. School patrons who permit buildings to decay cannot expect the education of their children to be unaffected, and school administrators who lethargically accept such decay are professionally and morally derelict.

3. Teeth rather than lip service must be put in the position of health coordinator to demonstrate once and for all its relative importance to the health and education of students. Fig. 7 recommends an organizational relationship between school district and health department that might solve some of the problems already analyzed at length. This pattern is thoroughly discussed in the source cited.

This author is designing a subsequent study which will seek to demonstrate the contribution of the health coordinator under a variety of administrative patterns but with emphasis on that suggested in Fig. 7.

4. A half facetious-half serious note will terminate this report. Perhaps program success can't be bought - completely - but money certainly helps. A good school health program requires more money than a poor one, and this is the facetious, all-too-obvious side of this final recommendation. Its serious side rests in the fact that good school health programs return more than their investment to the education and the future of students. Therefore, those directly responsible for the aspects of school budgets that relate to health instruction, health services, and/or healthful environment should be politely persistent in their demands.

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Appendix A

Self Administered Questionnaire for the Analysis of School Health Program Administration

Developed by Dr. Cyrus Mayshark, Professor and Chairman of Health Education, University of Tennessee, Knoxville, Tennessee

Self Administered Questionnaire for the Analysis of School Health Program Administration

This questionnaire has been developed in an effort to obtain a better understanding of the factors which help or hinder the effective administration of school health programs. It is designed to be filled out by you in privacy. You may rest assured that your name and the information you provide will be treated in the strictest confidence. Where information cannot be provided, please indicate "don't know" or "do not wish to answer," as may be indicated. This form will be destroyed when the research has been completed. Please fill it out and return it at your earliest convenience, hopefully before August 1, 1966.

I. What, in your opinion, are the five most important problems facing your school district at the present time in the area of student health? Consider and compare problems in health services, health instruction and school environment and list them in order of their importance.

1.) ______________________________

2.) ______________________________

3.) ______________________________

4.) ______________________________

5.) ______________________________

II. School districts must identify a wide variety of student health needs. Twelve examples are listed below. What is your estimate of the extent to which they are problems in your school district at the present time? Place a check mark in the appropriate blank space. If it requires immediate action, check the blank to the left. If you believe it is somewhere in between, check the blank which comes closest to where you believe the problem falls in your school district.

1. Dental decay Immediate action required _ _ _ _ _ _ Not a problem

2. Nutritional deficiencies Immediate action required _ _ _ _ _ _ Not a problem

3. Vision disorders Immediate action required _ _ _ _ _ _ Not a problem

4. Hearing disorders Immediate action required_ _ _ _ _ _Not a problem

5. Medical supervision needs of students Immediate action required_ _ _ _ _ _Not a problem

6. Mental and emotional problems Immediate action required_ _ _ _ _ _Not a problem

7. Smoking by adolescents Immediate action required_ _ _ _ _ _Not a problem

8. Consumption of alcohol by adolescents Immediate action required_ _ _ _ _ _Not a problem

9. Promiscuity by adolescents Immediate action required_ _ _ _ _ _Not a problem

10. Hazards in the school environment Immediate action required_ _ _ _ _ _Not a problem

11. General healthful climate of schools Immediate action required_ _ _ _ _ _Not a problem

12. Administrative climate of schools Immediate action required_ _ _ _ _ _Not a problem

III. Whether or not the problems listed under II have been actively considered in your school district, please list the three persons who, in your best judgment, probably have the greatest positive influence in determining the quality of health service, instruction, and environment extended to the students. In some cases, the same person may be influential in more than one problem area, and therefore may be listed several times. Some of these may not be employed by the school district.

Problem area	Influential persons	Position
1. Dental decay	1.)________________	________
	2.)________________	________
	3.)________________	________
2. Nutritional deficiencies	1.)________________	________
	2.)________________	________
	3.)________________	________
3. Vision disorders	1.)________________	________
	2.)________________	________
	3.)________________	________
4. Hearing disorders	1.)________________	________
	2.)________________	________
	3.)________________	________

5. Medical supervision

1.)______________________________

2.)______________________________

3.)______________________________

6. Mental and emotional problems

1.)______________________________

2.)______________________________

3.)______________________________

7. Smoking by adolescents

1.)______________________________

2.)______________________________

3.)______________________________

8. Consumption of alcohol by adolescents

1.)______________________________

2.)______________________________

3.)______________________________

9. Promiscuity by adolescents

1.)______________________________

2.)______________________________

3.)______________________________

10. Hazards in the school environment	1.)__________ 2.)__________ 3.)__________
11. General healthful environment of schools	1.)__________ 2.)__________ 3.)__________
12. Administrative climate of schools	1.)__________ 2.)__________ 3.)__________

IV. For each of the 12 problem areas indicate with a check the degree of administrative action that, in your opinion, has been exercised to meet and solve these needs in the past three years.

Problem area	Well organized positive action	Some activity but undirected	Little action and considerable confusion
1. Dental decay			
2. Nutritional deficiencies			
3. Vision disorders			
4. Hearing disorders			
5. Medical supervision needs of students			
6. Mental and emotional problems			
7. Smoking by adolescents			
8. Consumption of alcohol by adolescents			
9. Promiscuity by adolescents			

(continued on next page)

Problem area	Well organized positive action	Some activity but undirected	Little action and considerable confusion
10. Hazards in the school environment			
11. General healthful climate of schools			
12. Administrative climate of schools			

V. The following questions are concerned with time spent administering the school health program.

1. Estimated proportion of your time devoted to administrative and/or other duties directly related to the health of school children.

_____a. None _____d. 26-50%

_____b. Less than 10% _____e. 51-75%

_____c. 10-25% _____f. More than 75%

2. Do the health needs of school children demand that you spend more time in this area - if you could?

_____Yes _____No _____Not involved

3. What proportion of time (estimate) does your immediate superior devote to administrative duties directly related to the health of school children?

_____a. Less than 10% _____d. 51-75%

_____b. 10-25% _____e. more than 75%

_____c. 26-50% _____f. not applicable (if school board member, etc.)

4. Do the health needs of school children demand that he (she) spend more time in this area - if he (she) could?

_____Yes _____No _____Not applicable (if school board member, etc.)

VI. The following questions relate to financial support of the school health program.

1. Are the elementary texts for health of recent vintage (5 years or less)?

_____Yes _____No

2. When health instruction takes place, do all elementary children have a text?

_____Yes _____No

3. Are the secondary texts for health of recent vintage (5 years or less)?

_____Yes _____No

4. Do you believe health instruction is given its proportionate share of the financial budget for texts, supplementary materials, and supplies?

_____Yes _____No

5. Are students deprived of needed health services because of insufficient funds?

_____Yes _____No

6. Has (Have) your school building(s) been allowed to fall into disrepair?

_____Yes _____No

7. If yes to No. 6, check the reason.

1.) lack of budget support by public_____

2.) poor administrative policies_____

3.) combination of 1 & 2_____

VII. For purposes of making comparisons between the six school districts that are participating in this Study, will you please indicate the following information about yourself.

1. Position: Check the appropriate line

    _____a. Elementary teacher

    _____b. Secondary teacher

    _____c. Nurse in employ of school district

    _____d. Nurse in employ of health department

    _____e. M. D. in employ of school district

    _____f. M. D. in employ of health department

    _____g. Supervisor of Health Instruction

    _____h. Principal

    _____i. Superintendent

    _____j. School board member

    _____k. P. T. A. President or member

    _____l. Other ________________________________

2. Sex: _____a. Male _____b. Female

3. Years in present community

    _____a. Less than three years

    _____b. 3-8 years

    _____c. 8-15 years

    _____d. More than 15 years

Appendix B

TABLE 1. BUDGET FIGURES OF SELECTED SCHOOL DISTRICTS FOR 1966-67

Budget Items	Denver, Colorado	Duval Co., Florida	Evanston, Illinois	Portland, Oregon	Prince George's Co., Md.	Tacoma, Wash.
Admin.	1,608,951	1,194,688	554,154	1,244,916	864,957	482,658
Instr.	40,433,467	41,415,871	9,984,583	31,956,868	55,277,513	17,089,525
Transp.	417,410	906,233	115,500	347,970	1,808,837	232,339
Atten.Ser. (and/or Personnel Services	554,463	29,338		399,636	418,728	38,309
Health Ser.	877,134	9,000	164,616	116,755	389,952	190,079
Oper. of Plant	4,578,389	4,397,070	1,219,436	4,038,313	5,944,953	2,038,344
Maint. of Plant	1,987,852	2,093,139	393,710	2,580,742	2,797,990	1,190,993
Fixed Chgs.	4,670,754	270,541	133,592	3,211,210	1,605,126	815,803
Food Ser.*	———	———	———	———	———	———
Stud.Body Act. and Com. Ser.	312,635	———	650,314	** 451,066	66,125	99,484
Capital Outlay	1,983,938	2,583,092	1,242,236	522,236	3,481,100	269,200
Reserve for Cont.	350,000	527,953	120,000	132,396	———	2,500
Outgoing Transfers	———	28,045	———	3,500	243,000	———
Totals	57,459,993	53,454,970	14,542,464	45,005,598	72,679,581	22,449,234

*This category represents a minimal debit against the local tax structure. Reporting is variable in each of the six districts and so is not included in the comparisons made by this study.

**Cost to school district after $92,000 income has been substracted

TABLE 2. TOTAL BUDGET, NUMBER OF STUDENTS, AND PER PUPIL EXPENDITURE FOR SELECTED SCHOOL DISTRICTS FOR 1966-67

School District	Total Budget* 1966-1967)	No. of Students Sept. 1, 1966	Per Pupil Expenditure
Denver, Colorado	$57,459,993	96,260	$596.25
Duval County, Florida	$53,454,970	116,674	$458.16
Evanston, Illinois	$14,542,464	15,663	$922.08
Portland, Oregon	$45,005,598	78,633	$572.35
Prince George's County, Maryland	$72,679,581	125,247	$580.29
Tacoma, Washington	$22,449,234	35,894	$625.43

*These figures correspond to the column totals of Table 1.

TABLE 3. HEALTH SERVICES BUDGET, NUMBER OF STUDENTS, AND PER PUPIL EXPENDITURES FOR SELECTED SCHOOL DISTRICTS FOR 1966-67

School District	Health Services Budget	No. of Students Sept. 1, 1966	Per Pupil Expenditure
Denver, Colorado	$877,134	96,260	$ 9.11
Duval County, Florida	$ 9,000*	116,674	$ .77
Evanston, Illinois	$164,616	15,663	$10.51
Portland, Oregon	$116,755**	78,633	$ 1.48
Prince George's County, Maryland	$389,952	125,247	$ 3.11
Tacoma, Washington	$190,079	35,894	$ 5.30

*This item includes only first aid supplies and related equipment. Personnel time and services are included in city and county health department budgets, and are discussed in the body of the report.

**This represents a flat fee paid by the school district to the City of Portland Health Department for nursing services and the consultation time of a physician.

TABLE 4. OPERATION AND MAINTENANCE OF PLANT, NUMBER OF STUDENTS, AND PER PUPIL EXPENDITURES FOR SELECTED SCHOOL DISTRICTS FOR 1966-67

School District	Operation of Plant	Maintenance of Plant	Total	No. of Students Sept. 1, 1966	Per Pupil Expenditure
Denver, Colorado	4,578,389	1,987,852	6,566,241	96,260	69.25
Duval County, Florida	4,397,070	2,093,139	6,490,209	116,674	55.63
Evanston, Illinois	1,219,436	393,710	1,613,146	15,663	103.00
Portland, Oregon	4,038,313	2,580,742	6,619,055	78,633	84.17
Prince George's County, Md.	5,944,953	2,797,990	8,742,943	125,247	69.80
Tacoma, Washington	2,038,344	1,190,993	3,229,337	35,894	89.97

TABLE 5. INFORMATION REGARDING THE NUMBER OF CLOSED-END QUESTIONNAIRES SENT, RETURNED, AND USABLE.

Community	Number Sent	Number Returned (Number Usable)	No. Still Out	Percentage Returned (Percentage Usable)
Denver Colorado	56	50 (41)	6	89.0% (73.2%)*
Duval County, Florida	46	32 (21)	14	70.0% (45.6%)
Evanston, Illinois	49	46 (39)	3	93.8% (79.5%)
Portland, Oregon	50	38 (30)	12	76.0% (60.0%)
Prince George's County, Maryland	60	54 (48)	7	88.0% (80.0%)
Tacoma, Washington	60	51 (38)	9	85.0% (63.5%)
Totals	321	270 (217)	51	84.0% (67.7%)

*The number of questionnaires usable as a percent of those sent.

TABLE 6. NUMBER OF USABLE QUESTIONNAIRES RETURNED BY SCHOOL DISTRICT AND ADMINISTRATIVE CATEGORY

	Teachers	Staff	Administration	Totals
Denver, Colorado	15	16	10	41
Duval County, Florida	2	17	2	21
Evanston, Illinois	11	18	10	39
Portland, Oregon	9	13	8	30
Prince George's County, Maryland	28	14	6	48
Tacoma, Washington	17	9	12	38
Totals	82	87	48	217

TABLE 7. DATES OF FIELD VISITATIONS TO SIX SCHOOL HEALTH PROGRAMS

Denver, Colorado	August 29 - September 2, 1966
Duval County, Florida	September 30 - October 4, 1966
Evanston, Illinois	December 12-15, 1966
Portland, Oregon	September 4-9, 1966
Prince George's County, Maryland	August 24-28, 1966
Tacoma, Washington	September 10-14, 1966

TABLE 8. PER CAPITA AND PER HOUSEHOLD INCOME FOR 1966 OF COMMUNITIES CORRESPONDING TO SELECTED SCHOOL DISTRICTS*

School District	Per Capita	Per Household	Percent Household by Income Group**				
			A	B	C	D	E
Denver, Colorado	2,930	8,497	16.8	13.7	31.3	15.7	22.5
Duval County, Florida	1,999	7,074	23.6	22.6	26.9	12.4	14.5
Evanston, Illinois	5,048	15,479	7.3	6.4	21.2	16.3	48.8
Portland, Oregon	2,976	8,014	18.4	19.5	26.3	15.4	20.4
Prince George's County, Maryland	2,664	10,006	6.5	7.9	28.5	21.9	35.2
Tacoma, Washington	2,347	6,911	22.8	14.0	31.8	15.1	16.3

*Source: "Survey of Buying Power," Sales Management: The Magazine of Marketing, Vol. 96:12, June 10, 1966

**A = 0 - $2,499; B = $2,500 - $3,999; C = $4,000 - $6,999; D = $7,000 - $9,999; E = $10,000 and over.

TABLE 9. PER CAPITA INCOME FOR 1966 COMPARED WITH PER PUPIL EXPENDITURE FOR EDUCATION FOR 1966-67

School District	Per Capita Income	Ranking	Per Pupil Expenditure for Education	Ranking
Denver, Colorado	$ 2,930	3	$ 596.25	3
Duval County, Florida	$ 1,999	6	$ 458.16	6
Evanston, Illinois	$ 5,048	1	$ 922.08	1
Portland, Oregon	$ 2,976	2	$ 572.35	5
Prince George's County, Maryland	$ 2,664	4	$ 580.29	4
Tacoma, Washington	$ 2,347	5	$ 625.43	2

Appendix C

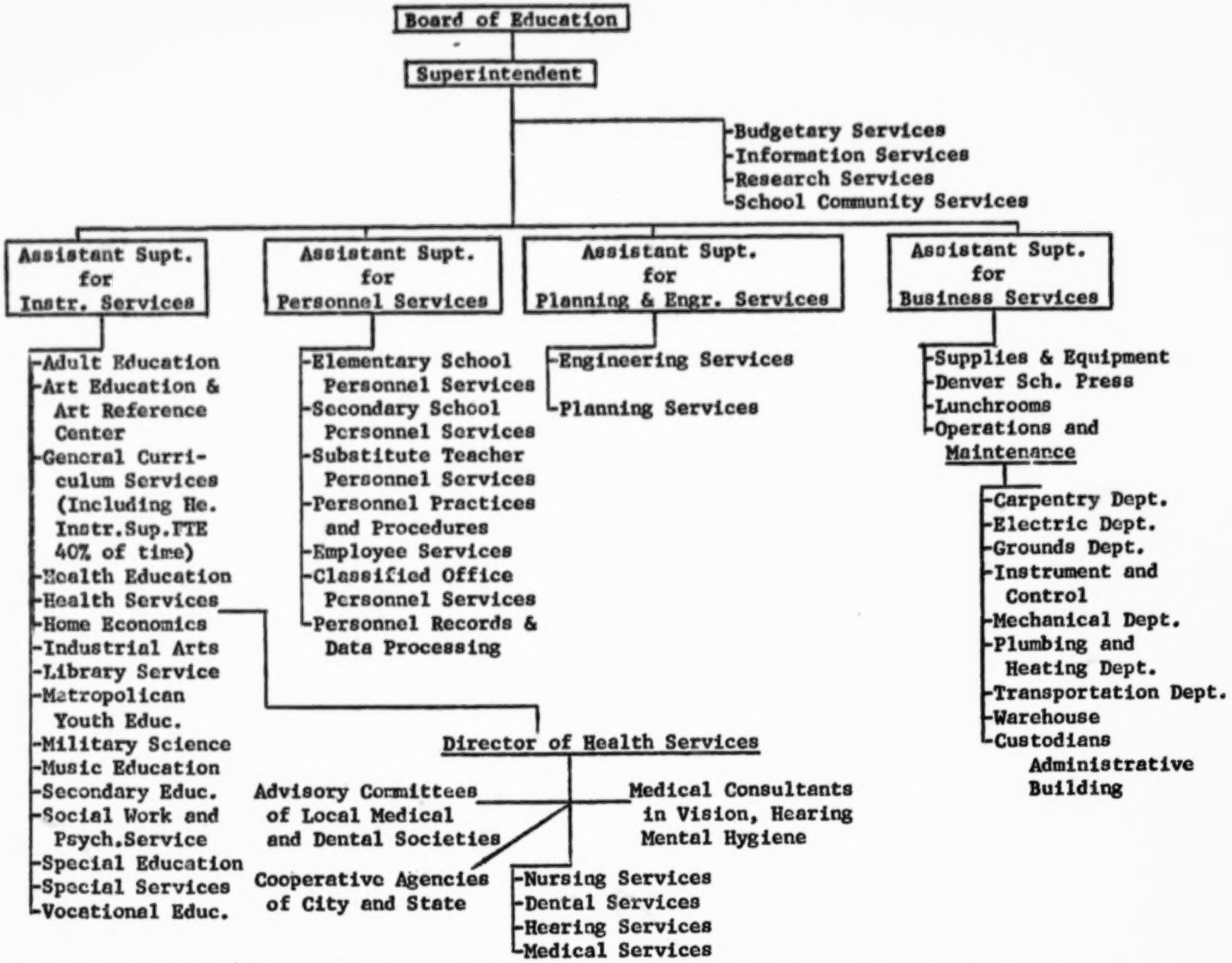
Board of Education
Superintendent
Budgetary Services
Information Services
Research Services
School Community Services
Assistant Supt. for Instr. Services
Assistant Supt. for Personnel Services
Assistant Supt. for Planning & Engr. Services
Assistant Supt. for Business Services
Adult Education
Art Education & Art Reference Center
General Curriculum Services (Including He. Instr.Sup.FTE 40% of time)
Health Education
Health Services
Home Economics
Industrial Arts
Library Service
Metropolican Youth Educ.
Military Science
Music Education
Secondary Educ.
Social Work and Psych.Service
Special Education
Special Services
Vocational Educ.
Elementary School Personnel Services
Secondary School Personnel Services
Substitute Teacher Personnel Services
Personnel Practices and Procedures
Employee Services
Classified Office Personnel Services
Personnel Records & Data Processing
Engineering Services
Planning Services
Supplies & Equipment
Denver Sch. Press
Lunchrooms
Operations and Maintenance
Carpentry Dept.
Electric Dept.
Grounds Dept.
Instrument and Control
Mechanical Dept.
Plumbing and Heating Dept.
Transportation Dept.
Warehouse
Custodians Administrative Building
Director of Health Services
Advisory Committees of Local Medical and Dental Societies
Medical Consultants in Vision, Hearing Mental Hygiene
Cooperative Agencies of City and State
Nursing Services
Dental Services
Hearing Services
Medical Services

Fig. 1. Organizational Chart of School District Number One in the City and County of Denver and State of Colo.

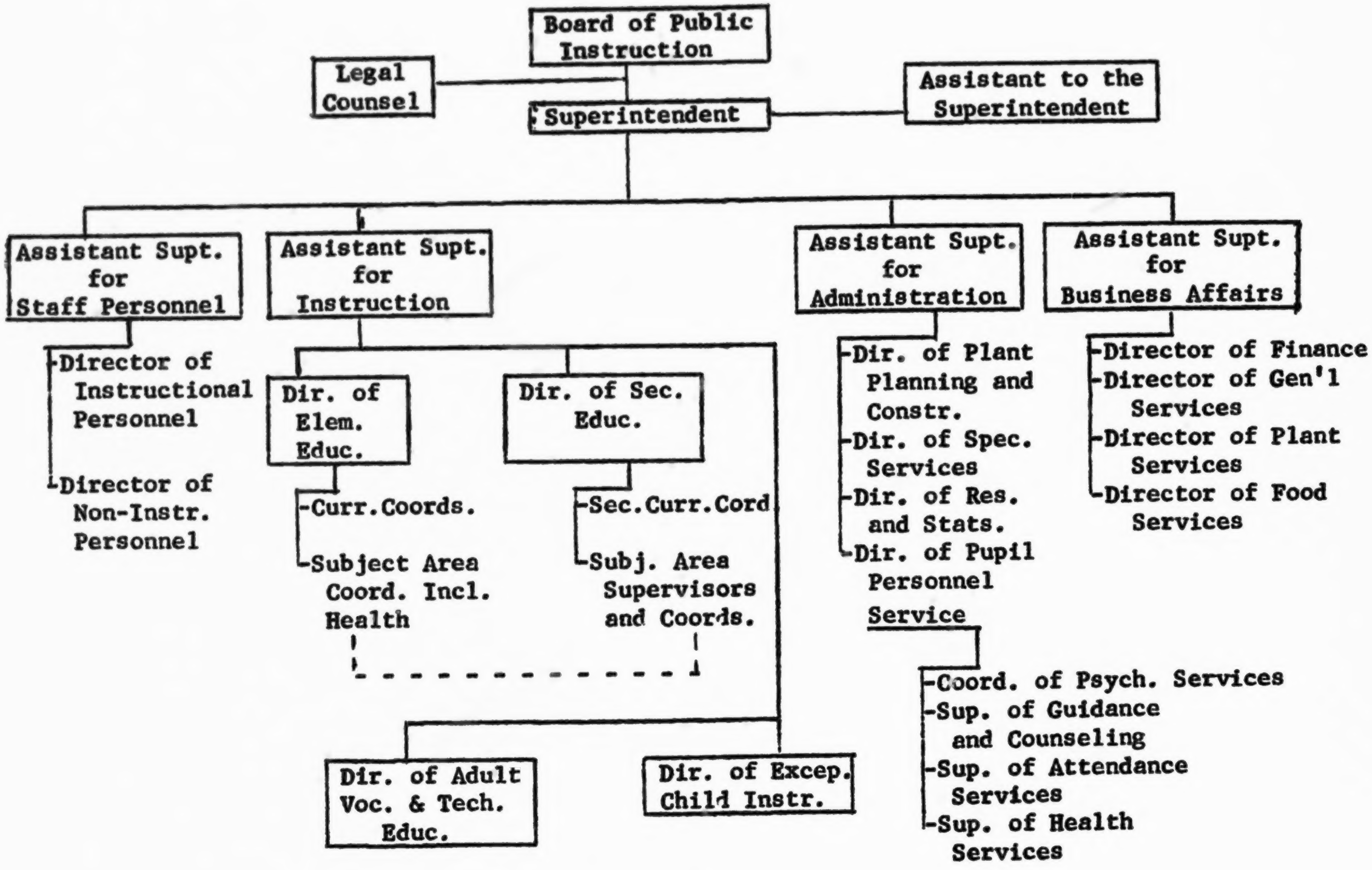
Board of Public Instruction
Legal Counsel
Superintendent
Assistant to the Superintendent
Assistant Supt. for Staff Personnel
Director of Instructional Personnel
Director of Non-Instr. Personnel
Assistant Supt. for Instruction
Dir. of Elem. Educ.
Curr.Coords.
Subject Area Coord. Incl. Health
Dir. of Sec. Educ.
Sec.Curr.Cord
Subj. Area Supervisors and Coords.
Dir. of Adult Voc. & Tech. Educ.
Dir. of Excep. Child Instr.
Assistant Supt. for Administration
Dir. of Plant Planning and Constr.
Dir. of Spec. Services
Dir. of Res. and Stats.
Dir. of Pupil Personnel Service
Coord. of Psych. Services
Sup. of Guidance and Counseling
Sup. of Attendance Services
Sup. of Health Services
Assistant Supt. for Business Affairs
Director of Finance
Director of Gen'l Services
Director of Plant Services
Director of Food Services

Fig. 2. Organizational Chart of the Duval County Schools, Jacksonville, Florida

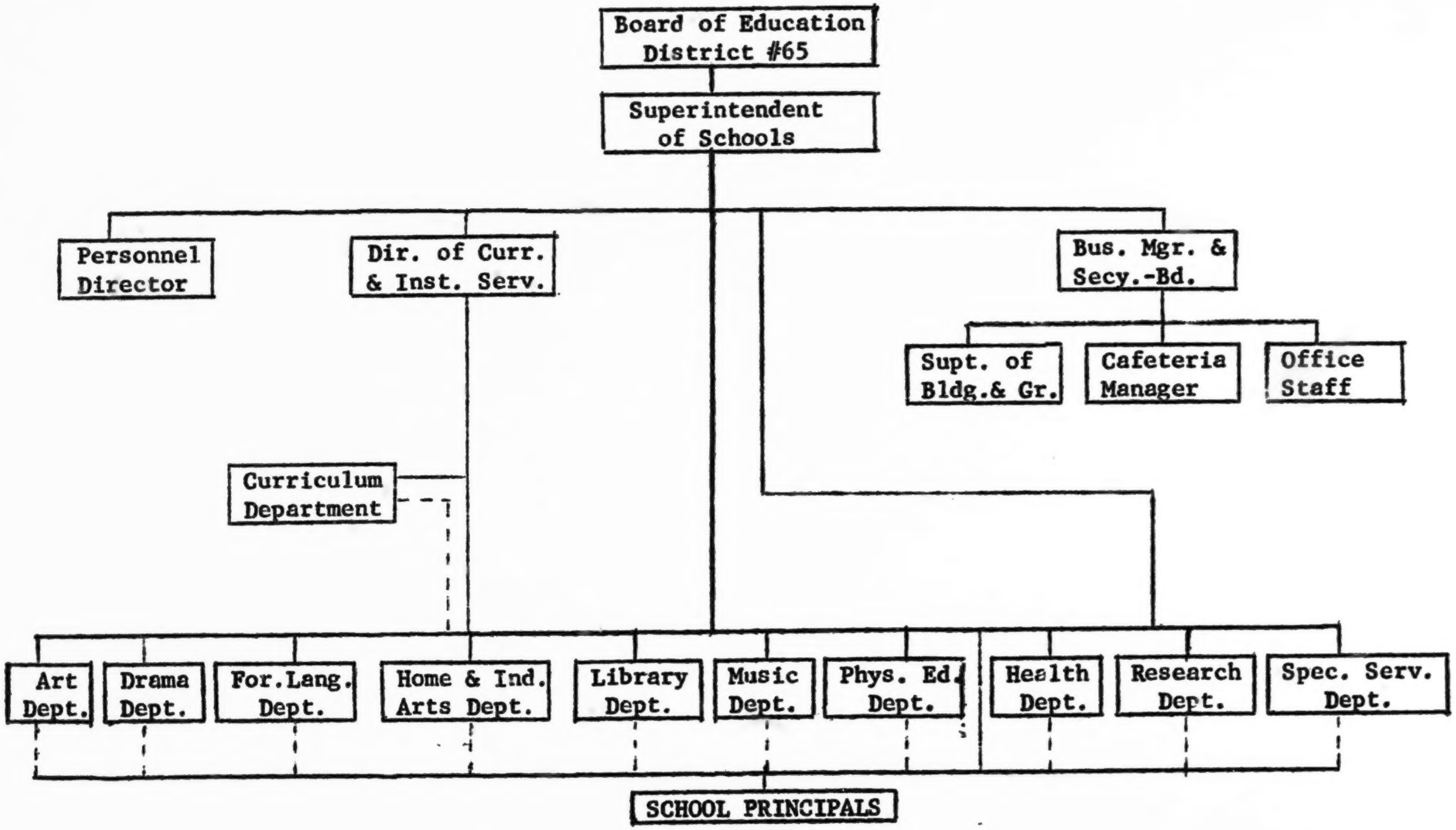
Board of Education
District #65
Superintendent of Schools
Personnel Director
Dir. of Curr. & Inst. Serv.
Bus. Mgr. & Secy.-Bd.
Supt. of Bldg.& Gr.
Cafeteria Manager
Office Staff
Curriculum Department
Art Dept.
Drama Dept.
For.Lang. Dept.
Home & Ind. Arts Dept.
Library Dept.
Music Dept.
Phys. Ed. Dept.
Health Dept.
Research Dept.
Spec. Serv. Dept.
SCHOOL PRINCIPALS

Fig. 3. Organizational Chart of School District Number 65, Evanston, Illinois, Elementary School System.

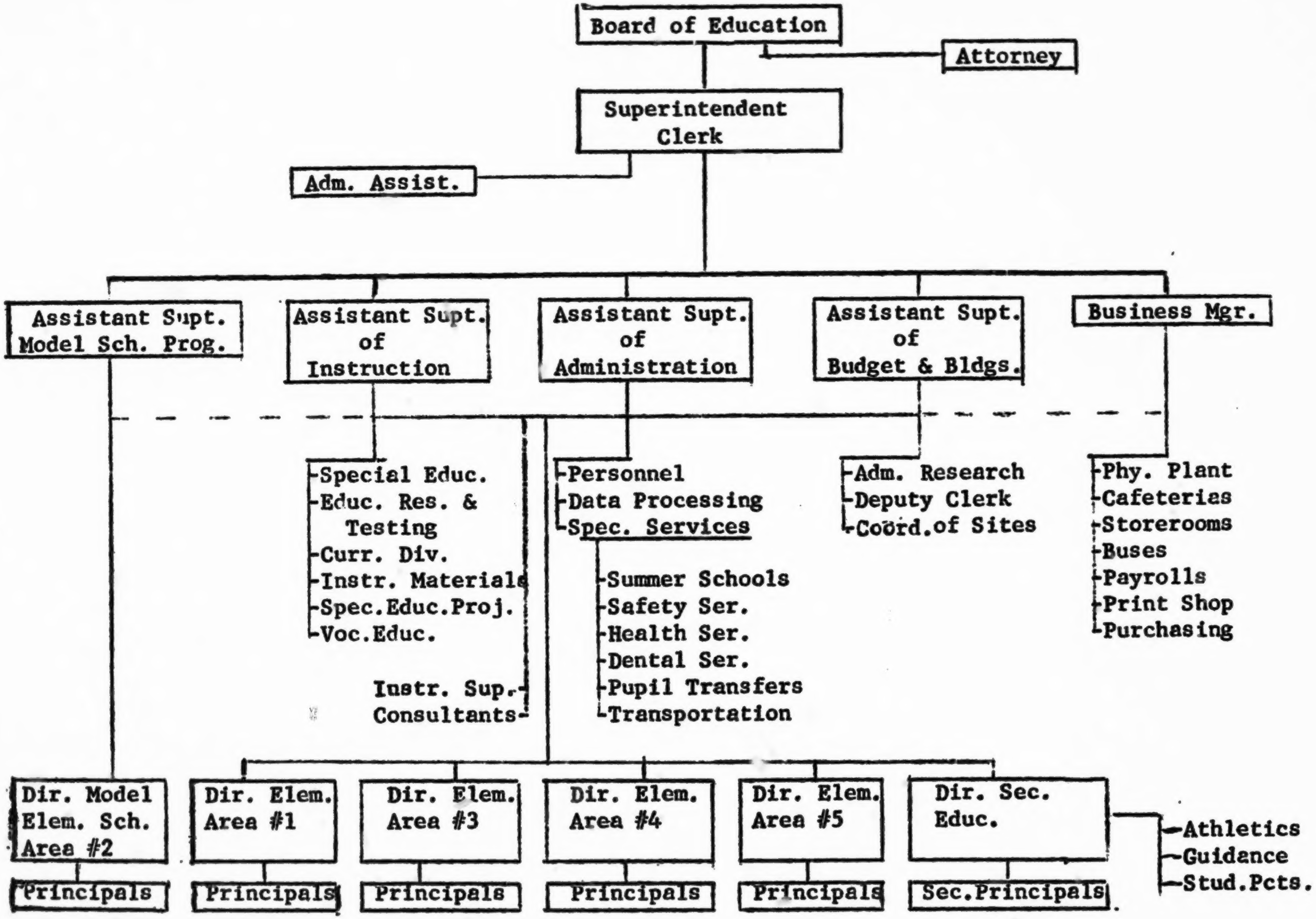
Board of Education
Attorney
Superintendent Clerk
Adm. Assist.
Assistant Supt. Model Sch. Prog.
Assistant Supt. of Instruction
Assistant Supt. of Administration
Assistant Supt. of Budget & Bldgs.
Business Mgr.
Special Educ.
Educ. Res. & Testing
Curr. Div.
Instr. Materials
Spec.Educ.Proj.
Voc.Educ.
Instr. Sup.
Consultants
Personnel
Data Processing
Spec. Services
Summer Schools
Safety Ser.
Health Ser.
Dental Ser.
Pupil Transfers
Transportation
Adm. Research
Deputy Clerk
Coörd.of Sites
Phy. Plant
Cafeterias
Storerooms
Buses
Payrolls
Print Shop
Purchasing
Dir. Model Elem. Sch. Area #2
Dir. Elem. Area #1
Dir. Elem. Area #3
Dir. Elem. Area #4
Dir. Elem. Area #5
Dir. Sec. Educ.
Principals
Principals
Principals
Principals
Principals
Sec.Principals
Athletics
Guidance
Stud.Pcts.

Fig. 4. Organizational Chart of School District Number One in the City of Portland, Oregon.

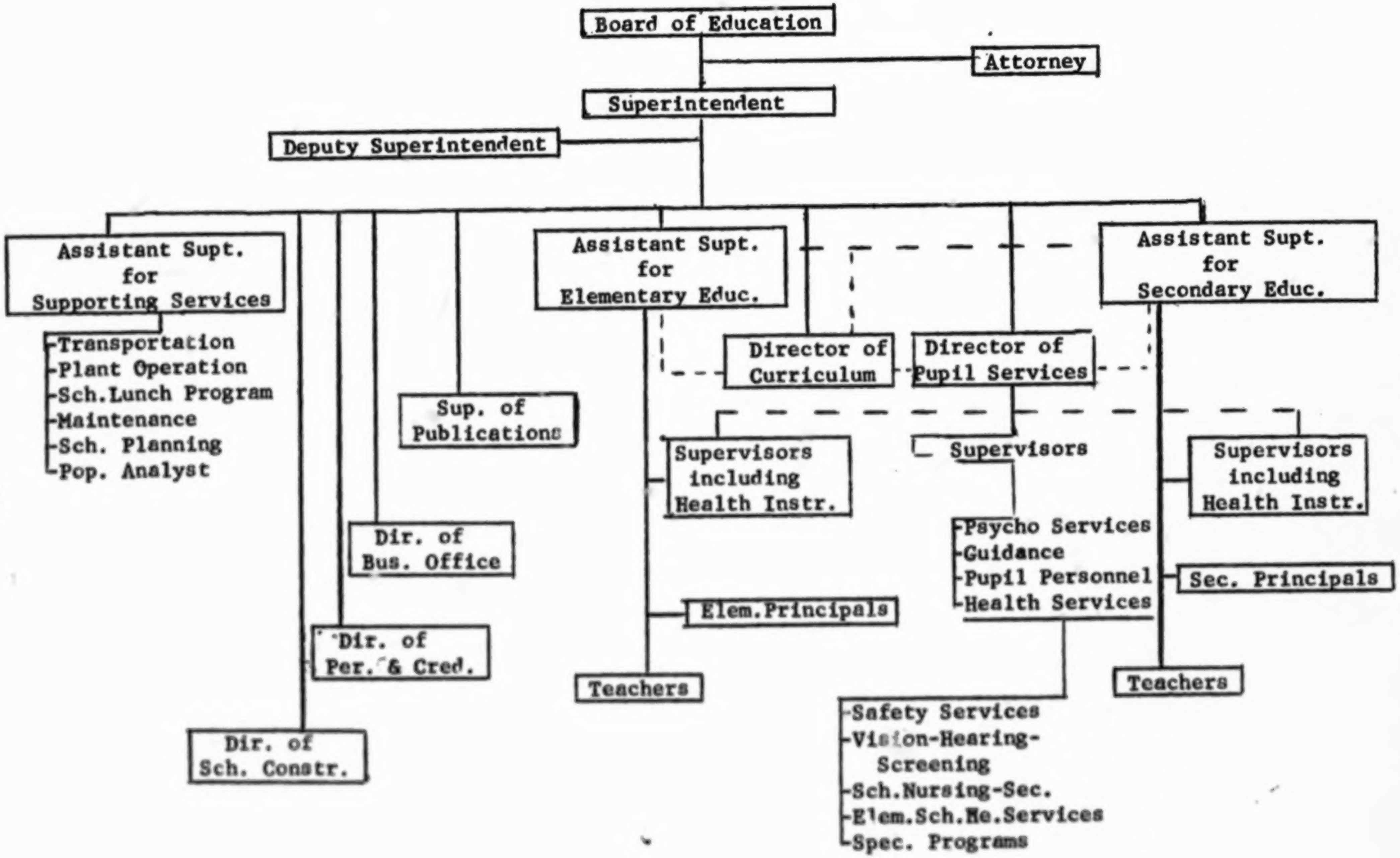
Board of Education
Attorney
Superintendent
Deputy Superintendent
Assistant Supt. for Supporting Services
Transportation
Plant Operation
Sch.Lunch Program
Maintenance
Sch. Planning
Pop. Analyst
Sup. of Publications
Dir. of Bus. Office
Dir. of Per. & Cred.
Dir. of Sch. Constr.
Assistant Supt. for Elementary Educ.
Director of Curriculum
Director of Pupil Services
Assistant Supt. for Secondary Educ.
Supervisors including Health Instr.
Supervisors
Supervisors including Health Instr.
Psycho Services
Guidance
Pupil Personnel
Health Services
Sec. Principals
Elem.Principals
Teachers
Teachers
Safety Services
Vision-Hearing-Screening
Sch.Nursing-Sec.
Elem.Sch.He.Services
Spec. Programs

Fig. 5. Organizational Chart of Prince George's County, Maryland Public Schools.

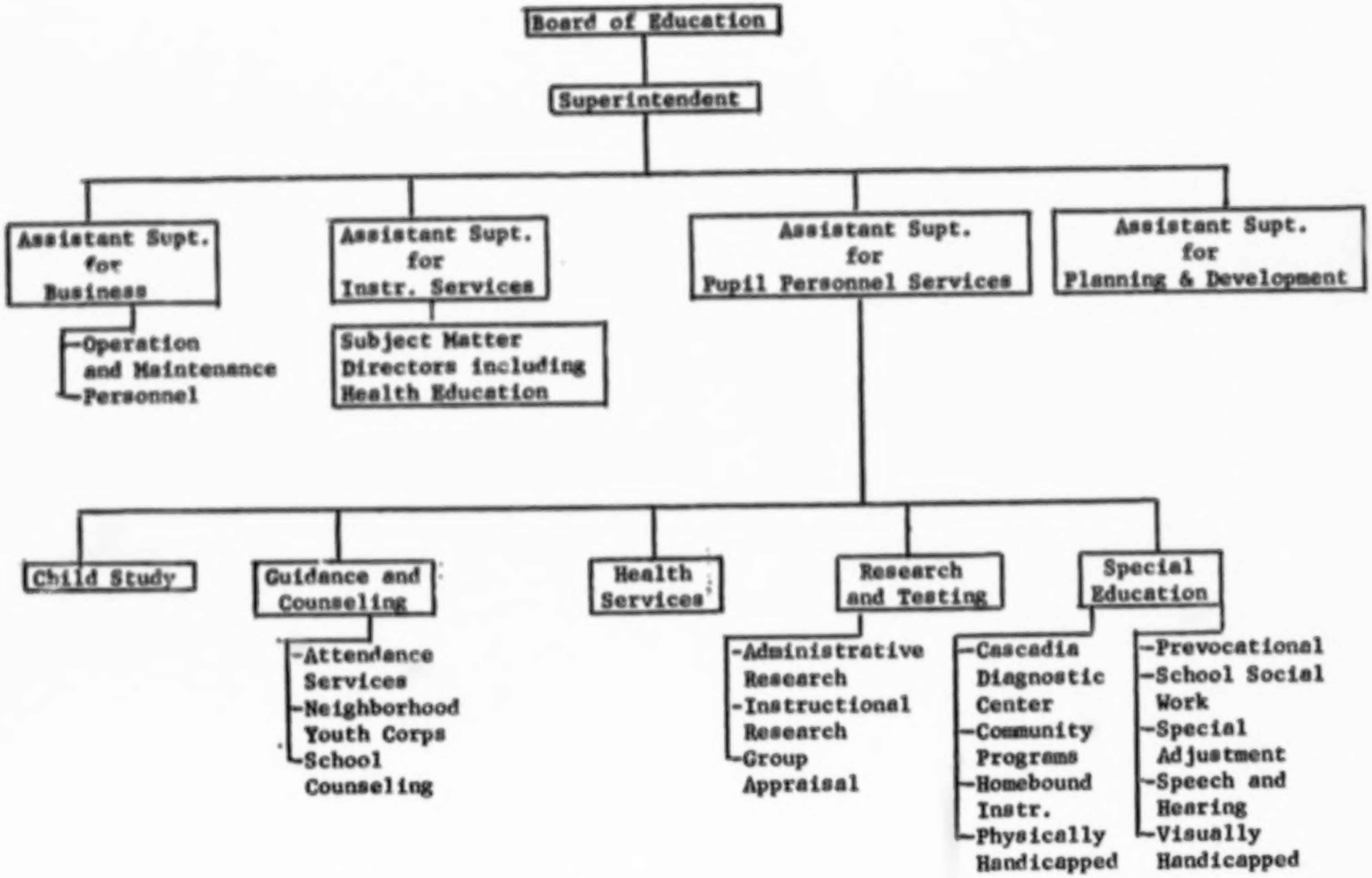
Board of Education
Superintendent
Assistant Supt. for Business
-Operation and Maintenance
-Personnel
Assistant Supt. for Instr. Services
Subject Matter Directors including Health Education
Assistant Supt. for Pupil Personnel Services
Assistant Supt. for Planning & Development
Child Study
Guidance and Counseling
-Attendance Services
-Neighborhood Youth Corps
-School Counseling
Health Services
Research and Testing
-Administrative Research
-Instructional Research
-Group Appraisal
Special Education
-Cascadia Diagnostic Center
-Community Programs
-Homebound Instr.
-Physically Handicapped
-Prevocational
-School Social Work
-Special Adjustment
-Speech and Hearing
-Visually Handicapped

Fig. 6. Organizational Chart of the Tacoma, Washington Public Schools with Emphasis on Pupil Personnel Services.

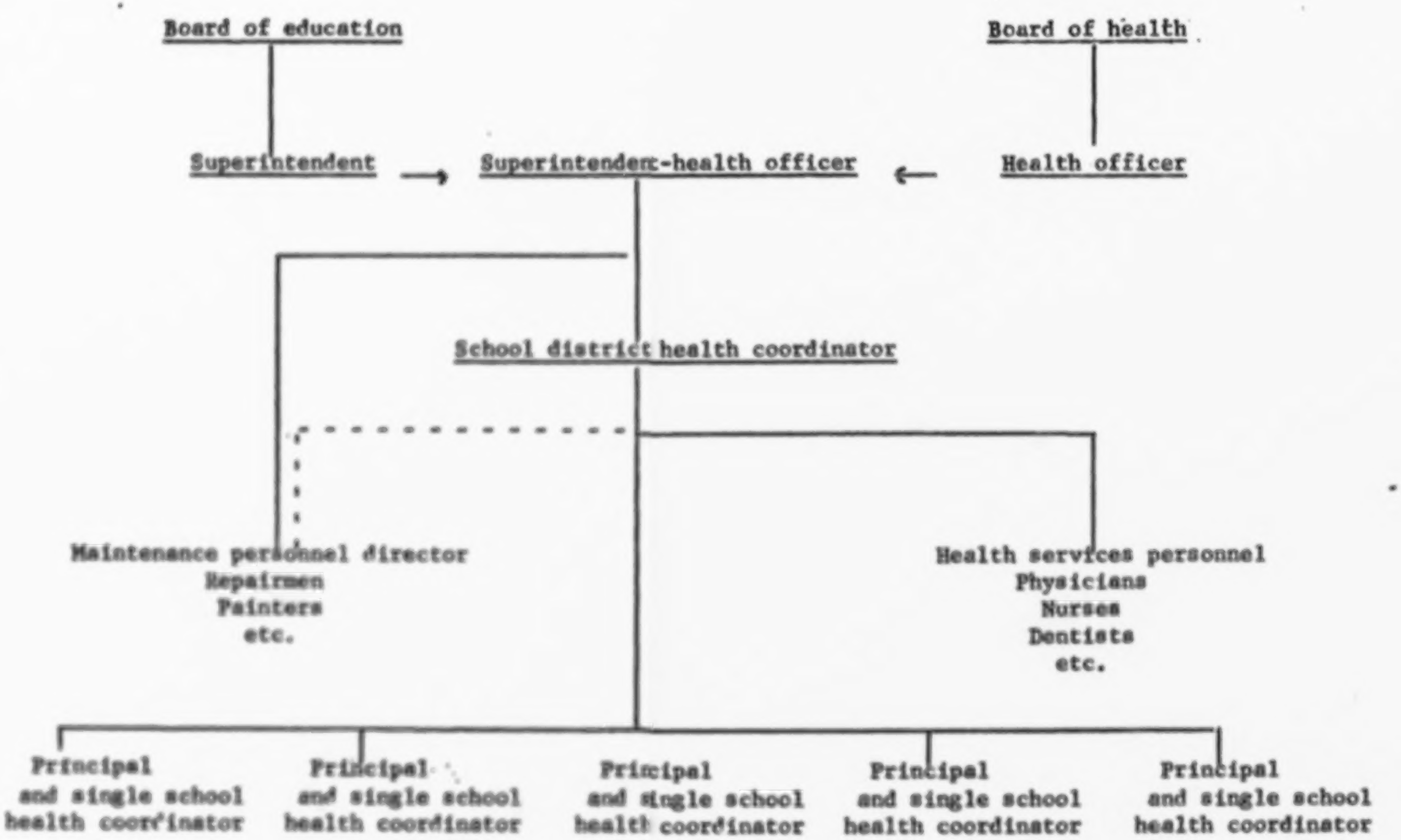
Board of education
Board of health
Superintendent
Superintendent-health officer
Health officer
School district health coordinator
Maintenance personnel director
Repairmen
Painters
etc.
Health services personnel
Physicians
Nurses
Dentists
etc.
Principal
and single school
health coordinator
Principal
and single school
health coordinator
Principal
and single school
health coordinator
Principal
and single school
health coordinator
Principal
and single school
health coordinator

Fig. 7. Functional type of administrative control in which the board of education and the board of health share responsibility for the school health program in a school district. With this administrative pattern, the district health coordinator has authority over the single school health coordinator in matters pertaining to school health. (From Mayshark, Cyrus and Shaw, D. D., Administration of School Health Programs - Its Theory and Practice, St. Louis, 1967, The C. V. Mosby Co.)

Appendix D

TABLE 10. DIFFERENCES IN PERCEPTIONS OF HEALTH PROBLEMS OF CHILDREN AS SEEN BY ALL RESPONDENTS IN SIX SCHOOL DISTRICTS

	Denver, Colorado	Duval County, Florida	Evanston, Illinois	Portland, Oregon	Prince George's County, Maryland
Duval County, Florida					
t	3.2874+				
DF	60				
Evanston, Illinois					
t	2.4626*	6.6767+			
DF	78	58			
Portland, Oregon					
t	1.1769#	3.1445+	4.5483+		
DF	69	49	67		
Prince George's County, Maryland					
t	1.5160#	2.2207*	4.4054+	0.36912#	
DF	87	67	85	76	
Tacoma, Washington					
t	1.3913#	2.2384*	4.2317+	0.31358#	0.05016#
DF	77	57	75	66	84

+p =< .01

*p =< .05

#p = not significant

	Mean	S.D.	n
Evanston	4.4112	0.64463	39
Denver	3.9740	0.91321	41
Portland	3.7556	0.51923	30
Tacoma	3.7017	0.81848	38
Prince George's	3.6927	0.83619	48
Duval County	3.2345	0.66333	21

TABLE 11. DIFFERENCES IN PERCEPTIONS OF HEALTH PROBLEMS OF CHILDREN AS SEEN BY TEACHERS, STAFF PERSONNEL, AND LINE ADMINISTRATORS - ALL SIX DISTRICTS COMBINED

	Teachers	Staff Personnel
Staff Personnel		
t	0.66631#	
DF	167	
Line Administrators		
t	0.1838#	0.37829#
DF	128	133

#p = not significant

	Mean	S.D.	n
Teachers	3.8808	0.81535	82
Line Administrators	3.8532	0.84353	48
Staff Personnel	3.7965	0.82799	87

TABLE 12. DIFFERENCES IN PERCEPTIONS OF HEALTH PROBLEMS OF CHILDREN AS SEEN BY TEACHERS IN SIX SCHOOL DISTRICTS

	Denver, Colorado	Duval County, Florida	Evanston, Illinois	Portland, Oregon	Prince George's County, Maryland
Duval County, Florida					
t	0.16541$^{\#}$				
DF	15				
Evanston, Illinois					
t	0.85293$^{\#}$	1.0280$^{\#}$			
DF	24	11			
Portland, Oregon					
t	1.1996$^{\#}$	0.99663$^{\#}$	3.3533^{+}		
DF	22	9	18		
Prince George's County, Maryland					
t	0.53314$^{\#}$	0.51255$^{\#}$	0.61180$^{\#}$	2.2676*	
DF	41	28	37	35	
Tacoma, Washington					
t	.003748$^{\#}$	0.20393$^{\#}$	1.0347$^{\#}$	1.4668$^{\#}$	0.61579$^{\#}$
DF	30	17	26	24	43

$^{+}p =< .01$

$^{*}p =< .05$

$^{\#}p =$ not significant

	Mean	S.C.	n
Evanston	4.1515	0.57350	11
Prince George's	3.9940	0.77144	28
Denver	3.8411	1.0981	15
Tacoma	3.8398	0.88279	17
Duval	3.7084	0.41246	2
Portland	3.3796	0.42310	9

TABLE 13. DIFFERENCES IN PERCEPTIONS OF HEALTH PROBLEMS OF CHILDREN AS SEEN BY STAFF PERSONNEL IN SIX SCHOOL DISTRICTS

	Denver, Colorado	Duval County, Florida	Evanston, Illinois	Portland, Oregon	Prince George's County, Maryland
Duval County, Florida					
t	3.2449^{+}				
DF	31				
Evanston, Illinois					
t	2.0549^{*}	5.9286^{+}			
DF	32	33			
Portland, Oregon					
t	$.62694^{\emptyset}$	2.9175^{+}	2.9887^{+}		
DF	27	28	29		
Prince George's County, Maryland					
t	3.2250^{+}	$0.30360^{\emptyset}$	5.7075^{+}	2.9680^{+}	
DF	28	29	30	25	
Tacoma, Washington					
t	$1.6961^{\emptyset}$	$0.88460^{\emptyset}$	3.6815^{+}	$1.3974^{\emptyset}$	$1.0396^{\emptyset}$
DF	23	24	25	20	21

^{+}p =< .01

$^{*}p$ =< .05

$^{\emptyset}p$ = not significant

	Mean	S.D.	n
Evanston	4.56481	0.65025	18
Denver	4.0667	0.76339	16
Portland	3.9103	0.52534	13
Tacoma	3.5247	0.77336	9
Duval	3.2750	0.63577	17
Prince George's	3.2024	0.69469	14

TABLE 14. DIFFERENCES IN PERCEPTIONS OF HEALTH PROBLEMS OF CHILDREN AS SEEN BY LINE ADMINISTRATORS IN SIX SCHOOL DISTRICTS

	Denver, Colorado	Duval County, Florida	Evanston, Illinois	Portland, Oregon	Prince George's County, Maryland
Duval County, Florida					
t	2.3734*				
DF	10				
Evanston, Illinois					
t	1.1086$^{\emptyset}$	3.8591^{+}			
DF	18	10			
Portland, Oregon					
t	0.45815$^{\emptyset}$	4.1229^{+}	1.9548$^{\emptyset}$		
DF	15	7	15		
Prince George's County, Maryland					
t	1.2698$^{\emptyset}$	1.4263$^{\emptyset}$	2.4827*	1.1172$^{\emptyset}$	
DF	14	6	14	11	
Tacoma, Washington					
t	1.0707$^{\emptyset}$	2.0622$^{\emptyset}$	2.4584*	0.67487$^{\emptyset}$	0.50077$^{\emptyset}$
DF	20	12	20	17	16

^{+}p =< .01

$^{*}p$ =< .05

$^{\emptyset}p$ = not significant

	Mean	S.D.	n
Evanston	4.4204	0.67875	10
Denver	4.0250	0.90101	10
Portland	3.8572	0.40458	7
Tacoma	3.6389	0.79082	12
Prince George's	3.4305	0.91655	6
Duval	2.4166	0.58923	2

TABLE 15. DIFFERENCES IN PERCEPTIONS REGARDING ADMINISTRATIVE ACTION TO MEET AND SOLVE HEALTH NEEDS OF CHILDREN AS SEEN BY ALL RESPONDENTS IN SIX SCHOOL DISTRICTS

	Denver, Colorado	Duval County, Florida	Evanston, Illinois	Portland, Oregon	Prince George's County, Maryland
Duval County, Florida					
t	5.5833^{+}				
DF	60				
Evanston, Illinois					
t	$0.62649^{\#}$	5.3214^{+}			
DF	78	58			
Portland, Oregon					
t	3.2355^{+}	3.5796^{+}	2.8318^{+}		
DF	69	49	67		
Prince George's County, Maryland					
t	2.3954^{*}	4.7606^{+}	$1.8328^{\#}$	$1.0563^{\#}$	
DF	87	67	85	76	
Tacoma, Washington					
t	$1.2157^{\#}$	4.1769^{+}	$0.75350^{\#}$	$1.3114^{\#}$	$0.62534^{\#}$
DF	77	57	75	66	84

^{+}p =< .01

$^{*}p$ =< .05

$^{\#}p$ = not significant

	Mean	S.D.	n
Denver	2.6159	0.34353	41
Evanston	2.5703	0.30380	39
Tacoma	2.5000	0.49510	38
Prince George's	2.4441	0.33165	48
Portland	2.3667	0.28585	30
Duval	1.7741	0.84315	21

TABLE 16. DIFFERENCES IN PERCEPTIONS REGARDING ADMINISTRATIVE ACTION TO MEET AND SOLVE HEALTH NEEDS OF CHILDREN AS SEEN BY TEACHERS, STAFF PERSONNEL, AND LINE ADMINISTRATORS ALL SIX DISTRICTS COMBINED

	Teachers	Staff Personnel
Staff Personnel		
t	.04495#	
DF	167	
Line Administrators		
t	1.4539#	1.1671#
DF	128	133

#p = not significant

	Mean	S.D.	n
Line Administrators	2.5167	0.33179	48
Staff Personnel	2.4100	0.58240	87
Teachers	2.4097	0.44188	82

TABLE 17. DIFFERENCES IN PERCEPTIONS REGARDING ADMINISTRATIVE ACTION TO MEET AND SOLVE HEALTH NEEDS OF CHILDREN AS SEEN BY TEACHERS IN SIX SCHOOL DISTRICTS

	Denver, Colorado	Duval County, Florida	Evanston, Illinois	Portland, Oregon	Prince George's County, Maryland
Duval County, Florida					
t	4.5175^{+}				
DF	15				
Evanston, Illinois					
t	$0.85425^{\#}$	4.2182^{+}			
DF	24	11			
Portland, Oregon					
t	$1.3978^{\#}$	4.2166^{+}	$0.58319^{\#}$		
DF	22	9	18		
Prince George's County, Maryland					
t	$0.63611^{\#}$	5.8591^{+}	$0.52596^{\#}$	$1.2428^{\#}$	
DF	41	28	37	35	
Tacoma, Washington					
t	$0.33881^{\#}$	6.1613^{+}	$1.4736^{\#}$	2.3420^{*}	$1.2320^{\#}$
DF	30	17	26	24	43

$^{+}p =< .01$

$^{*}p =< .05$

$^{\#}p =$ not significant

	Mean	S.D.	n
Tacoma	2.5539	0.27786	17
Denver	2.5111	0.42941	15
Prince George's	2.4369	0.32591	28
Evanston	2.3736	0.36943	11
Portland	2.2870	0.27359	9
Duval	0.79165	1.1196	2

TABLE 18. DIFFERENCES IN PERCEPTIONS REGARDING ADMINISTRATIVE ACTION TO MEET AND SOLVE HEALTH NEEDS OF CHILDREN AS SEEN BY STAFF PERSONNEL IN SIX SCHOOL DISTRICTS

	Denver, Colorado	Duval County, Florida	Evanston, Illinois	Portland, Oregon	Prince George's County, Maryland
Duval County, Florida					
t	3.7692^{+}				
DF	31				
Evanston, Illinois					
t	0.36762$^{\emptyset}$	4.2818^{+}			
DF	32	33			
Portland, Oregon					
t	2.7058*	2.1139*	3.6933^{+}		
DF	27	28	29		
Prince George's County, Maryland					
t	1.6826$^{\emptyset}$	2.6430*	2.3664*	0.87763$^{\emptyset}$	
DF	28	29	30	25	
Tacoma, Washington					
t	1.5828$^{\emptyset}$	1.2317$^{\emptyset}$	1.9048$^{\emptyset}$	0.28380$^{\emptyset}$	0.71069$^{\emptyset}$
DF	23	24	25	20	21

$^{+}p =< .01$

$^{*}p =< .05$

$^{\emptyset}p$ = not significant

	Mean	S.D.	n
Evanston	2.7083	0.19649	18
Denver	2.6771	0.29484	16
Prince George's	2.4821	0.33997	14
Portland	2.3718	0.31110	13
Tacoma	2.2963	0.89182	9
Duval	1.8729	0.80341	17

TABLE 19. DIFFERENCES IN PERCEPTIONS REGARDING ADMINISTRATIVE ACTION TO MEET AND SOLVE HEALTH NEEDS OF CHILDREN AS SEEN BY LINE ADMINISTRATORS IN SIX SCHOOL DISTRICTS

	Denver, Colorado	Duval County, Florida	Evanston, Illinois	Portland, Oregon	Prince George's County, Maryland
Duval County, Florida					
t	2.9848*				
DF	10				
Evanston, Illinois					
t	1.1446#	2.3096*			
DF	18	10			
Portland, Oregon					
t	1.8863#	1.7079#	0.79215#		
DF	15	7	15		
Prince George's Co., Maryland					
t	1.7941#	1.2624#	0.89405#	0.21267#	
DF	14	6	14	11	
Tacoma, Washington					
t	0.82603#	2.4606*	0.30617#	1.0616#	1.1378#
DF	20	12	20	17	16

*p =< .01

*p =< .05

#p = not significant

	Mean	S.D.	n
Denver	2.6750	0.25292	10
Tacoma	2.5764	0.29827	12
Evanston	2.5383	0.28034	10
Portland	2.4286	0.28231	7
Prince George's	2.3889	0.38969	6
Duval	1.9167	0.70711	2

TABLE 20. DIFFERENCES IN ESTIMATED PROPORTION OF TIME DEVOTED TO ADMINISTRATIVE AND/OR OTHER DUTIES RELATED TO THE HEALTH OF SCHOOL CHILDREN AS REPORTED BY ALL RESPONDENTS IN SIX SCHOOL DISTRICTS

	Denver, Colorado	Duval County, Florida	Evanston, Illinois	Portland, Oregon	Prince George's County, Maryland
Duval County, Florida					
t	2.1951*				
DF	60				
Evanston, Illinois					
t	1.3058#	0.92911#			
DF	78	58			
Portland, Oregon					
t	1.3425#	0.98957#	0.04957#		
DF	69	49	67		
Prince George's County, Maryland					
t	1.4021#	1.1903#	0.09401#	0.15175#	
DF	87	67	85	76	
Tacoma, Washington					
t	1.7257#	0.71721#	0.33118#	0.28281#	0.48220#
DF	77	57	75	66	84

+p =< .01

*p =< .05

#p = not significant

	Mean	S.D.	n
Denver	3.6829	1.8089	41
Prince George's	3.1875	1.5251	48
Evanston	3.1538	1.8142	39
Portland	3.1333	1.5477	30
Tacoma	3.0263	1.5507	38
Duval	2.7619	0.88909	21

TABLE 21. DIFFERENCES IN ESTIMATED PROPORTION OF TIME DEVOTED TO ADMINISTRATIVE AND/OR OTHER DUTIES RELATED TO THE HEALTH OF SCHOOL CHILDREN AS REPORTED BY TEACHERS, STAFF PERSONNEL, AND LINE ADMINISTRATORS ALL SIX DISTRICTS COMBINED

	Teachers	Staff Personnel
Staff Personnel		
t	3.9196^{+}	
DF	167	
Line Administrators		
t	2.7301^{+}	6.0451^{+}
DF	128	133

$^{+}p =< .01$

	Mean	S.D.	n
Staff Personnel	3.9195	1.7200	87
Teachers	2.9512	1.4732	82
Line Administrators	2.3125	0.87898	48

TABLE 22. DIFFERENCES IN ESTIMATED PROPORTION OF TIME DEVOTED TO ADMINISTRATIVE AND/OR OTHER DUTIES RELATED TO THE HEALTH OF SCHOOL CHILDREN AS REPORTED BY TEACHERS IN SIX SCHOOL DISTRICTS

	Denver, Colorado	Duval County Florida	Evanston, Illinois	Portland, Oregon	Prince George's County Maryland
Duval County, Florida					
t	0.08125#				
DF	15				
Evanston, Illinois					
t	0.94910#	0.69076#			
DF	24	11			
Portland, Oregon					
t	1.0072#	0.62124#	0.21651#		
DF	22	9	18		
Prince George's County, Maryland					
t	1.3081#	0.73610#	0.06814#	0.21264#	
DF	41	28	37	35	
Tacoma, Washington					
t	0.70220#	0.4445#	0.32121#	0.49517#	0.49077#
DF	30	17	26	49	43

#p = not significant

	Mean	S.D.	n
Duval	3.5000	0.70711	2
Denver	3.4000	1.6818	15
Tacoma	3.000	1.5411	17
Evanston	2.8182	1.3280	11
Prince George's	2.7857	1.3432	28
Portland	2.6667	1.8028	9

TABLE 23. DIFFERENCES IN ESTIMATED PROPORTION OF TIME DEVOTED TO ADMINISTRATIVE AND/OR OTHER DUTIES RELATED TO THE HEALTH OF SCHOOL CHILDREN AS REPORTED BY STAFF PERSONNEL IN SIX SCHOOL DISTRICTS

	Denver, Colorado	Duval County, Florida	Evanston, Illinois	Portland, Oregon	Prince George's County Maryland
Duval County, Florida					
t	3.5357^{+}				
DF	31				
Evanston, Illinois					
t	$0.62420^{\emptyset}$	3.2035^{+}			
DF	32	33			
Portland, Oregon					
t	$1.1460^{\emptyset}$	2.5507^{*}	$0.62679^{\emptyset}$		
DF	27	28	29		
Prince George's County, Maryland					
t	$0.70615^{\emptyset}$	3.0555^{+}	$0.13092^{\emptyset}$	$0.48370^{\emptyset}$	
DF	28	29	30	25	
Tacoma, Washington					
t	$0.62128^{\emptyset}$	2.5641^{+}	$0.15215^{\emptyset}$	$0.36328^{\emptyset}$	$0.04236^{\emptyset}$
DF	23	24	25	20	21

$^{+}p =< .01$

$^{*}p =< .05$

$^{\emptyset}p =$ not significant

	Mean	S.D.	n
Denver	4.6250	2.0290	16
Evanston	4.2222	1.7339	18
Prince George's	4.1429	1.6575	14
Tacoma	4.1111	1.9003	9
Portland	3.0462	1.5191	13
Duval	2.7059	0.91956	17

TABLE 24. DIFFERENCES IN ESTIMATED PROPORTION OF TIME DEVOTED TO ADMINISTRATIVE AND/OR OTHER DUTIES RELATED TO THE HEALTH OF SCHOOL CHILDREN AS REPORTED BY LINE ADMINISTRATORS IN SIX SCHOOL DISTRICTS

	Denver, Colorado	Duval County Florida	Evanston, Illinois	Portland, Oregon	Prince George's County Maryland
Duval County, Florida					
t	$0.23973^{\#}$				
DF	10				
Evanston, Illinois					
t	2.6517^{*}	$1.1129^{\#}$			
DF	18	10			
Portland, Oregon					
t	$0.09081^{\#}$	$0.11482^{\#}$	$2.0321^{\#}$		
DF	15	7	15		
Prince George's County, Maryland					
t	$0.55639^{\#}$	$0.36927^{\#}$	2.1527^{*}	$0.48075^{\#}$	
	14	6	14	11	
Tacoma, Washington					
t	$1.4176^{\#}$	$0.52027^{\#}$	$1.7737^{\#}$	$0.98741^{\#}$	$1.4018^{\#}$
DF	20	12	20	17	16

$^{*}p =< .05$

$^{\#}p$ = not significant

	Mean	S.D.	n
Prince George's	2.8333	1.1690	6
Denver	2.6000	0.51640	10
Portland	2.5714	0.78680	7
Duval	2.5000	0.70711	2
Tacoma	2.2500	0.62158	12
Evanston	1.6000	1.0750	10

TABLE 25. RECOGNITION OF PERSONAL NEED TO DIRECT MORE TIME IN AREAS RELATED TO SCHOOL HEALTH PROGRAM AS SEEN BY TEACHERS, STAFF PERSONNEL, AND LINE ADMINISTRATORS IN SIX SCHOOL DISTRICTS

	Denver, Colo.	Duval, Fla.	Evanston, Ill.	Portland, Oregon	P.G. Co., Md.	Tacoma, Wash.	Totals
Teachers							
Yes	7	1	4	8	15	10	45
No	6	1	5	0	9	4	25
Not Involved	2	0	1	1	4	3	11
No Answer	0	0	1	0	0	0	1
Staff Personnel							
Yes	9	14	10	8	10	6	57
No	3	0	8	3	1	2	17
Not Involved	2	1	0	1	1	1	6
No Answer	2	2	0	1	2	0	7
Line Administrators							
Yes	4	1	3	2	5	5	20
No	6	1	4	3	0	6	20
Not Involved	0	0	2	2	0	0	4
No Answer	0	0	1	1	1	1	4
Totals							
Yes	20	16	17	18	30	21	122
No	15	2	17	6	10	12	62
Not Involved	4	1	3	4	5	4	21
No Answer	2	2	2	2	3	1	12
Totals	41	21	39	30	48	38	217

CHI-SQUARES

	Teachers	Staff Personnel
Staff Personnel	$2.83^{@}$	
Line Administrators	2.15^{ϕ}	8.65^{+}

$^{+}p = < .01$

$^{@}p = < .10$

$^{\phi}p =$ not significant

TABLE 26. PERCEIVED NEED OF IMMEDIATE SUPERIOR TO DIRECT MORE TIME IN AREAS RELATED TO SCHOOL HEALTH PROGRAM AS SEEN BY TEACHERS, STAFF PERSONNEL, AND LINE ADMINISTRATORS IN SIX SCHOOL DISTRICTS

	Denver, Colo.	Duval, Fla.	Evanston, Ill.	Portland, Oregon	P.G. Co., Md.	Tacoma, Wash.	Totals
Teachers							
Yes	7	0	5	7	17	10	46
No	8	1	4	1	9	6	29
Not Applicable	0	1	1	1	1	0	4
No Answer	0	0	1	0	1	1	3
Staff Personnel							
Yes	6	12	7	5	5	6	41
No	7	0	9	5	2	2	25
Not Applicable	1	1	1	2	5	0	10
No Answer	2	4	1	1	2	1	11
Line Administrators							
Yes	3	1	3	1	4	4	16
No	4	1	2	4	1	6	18
Not Applicable	1	0	3	2	1	2	9
No Answer	2	0	2	1	0	0	5
Totals							
Yes	16	13	15	13	26	20	103
No	19	2	15	10	12	14	72
Not Applicable	2	2	5	5	7	2	23
No Answer	4	4	4	2	3	2	19
Totals	41	21	39	30	48	38	217

CHI-SQUARES

	Teachers	Staff Personnel
Staff Personnel	0.01^{ϕ}	
Line Administrators	1.94^{ϕ}	2.08^{ϕ}

$^{\phi}$p = not significant

TABLE 27. DO YOU BELIEVE HEALTH INSTRUCTION IS GIVEN ITS PROPORTIONATE SHARE OF THE FINANCIAL BUDGET FOR TEXTS, SUPPLEMENTARY MATERIALS, AND SUPPLIES?

	Denver, Colo.	Duval, Fla.	Evanston, Ill.	Portland, Oregon	P.G. Co., Md.	Tacoma, Wash.	Totals
Teachers							
Yes	8	1	6	5	9	10	39
No	7	0	3	4	18	6	38
D.K.	0	1	2	0	1	1	5
Staff Personnel							
Yes	7	1	14	6	3	3	34
No	7	9	2	4	7	5	34
D.K.	2	7	2	3	4	1	19
Line Administrators							
Yes	7	1	7	7	3	6	31
No	2	1	3	1	3	5	15
D.K.	1	0	0	0	0	1	2
Totals							
Yes	22	3	27	18	15	19	104
No	16	10	8	9	28	16	87
D.K.	3	8	4	3	5	3	26
Totals	41	21	39	30	48	38	217

CHI-SQUARES

	Teachers	Staff Personnel
Staff Personnel	0.01^{ϕ}	
Line Administrators	$3.29^{@}$	$3.39^{@}$

$@_p = < .10$

$\phi_p =$ not significant

TABLE 28. ARE STUDENTS DEPRIVED OF NEEDED HEALTH SERVICES BECAUSE OF INSUFFICIENT FUNDS?

	Denver, Colo.	Duval, Fla.	Evanston, Ill.	Portland, Oregon	P.G. Co., Md.	Tacoma, Wash.	Totals
Teachers							
Yes	3	0	0	5	12	5	25
No	11	1	10	4	13	10	49
D.K.	1	1	1	0	3	2	8
Staff Personnel							
Yes	4	12	3	7	4	7	37
No	10	3	15	3	8	1	40
D.K.	2	2	0	3	2	1	10
Line Administrators							
Yes	0	1	1	5	2	3	12
No	9	1	7	3	4	8	32
D.K.	1	0	2	0	0	1	4
Totals							
Yes	7	13	4	17	18	15	74
No	30	5	32	10	25	19	121
D.K.	4	3	3	3	5	4	22
Totals	41	21	39	30	48	38	217

CHI-SQUARES

	Teachers	Staff Personnel
Staff Personnel	3.17[@]	
Line Administrators	0.34[#]	5.02[+]

[+] $p = < .01$

[@] $p = < .10$

[#] p = not significant

TABLE 29. HAS (HAVE) YOUR SCHOOL BUILDING(S) BEEN ALLOWED TO FALL INTO DISREPAIR?

	Denver, Colo.	Duval, Fla.	Evanston, Ill.	Portland, Oregon	P.G. Co., Md.	Tacoma, Wash.	Totals
Teachers							
Yes	0	0	0	2	1	1	4
No	14	2	10	7	27	16	76
D.K.	1	0	1	0	0	0	2
Staff Personnel							
Yes	0	9	0	3	0	0	12
No	16	6	18	8	11	8	67
D.K.	0	2	0	2	3	1	8
Line Administrators							
Yes	0	1	0	0	0	1	2
No	10	1	8	8	6	11	44
D.K.	0	0	2	0	0	0	2
Total							
Yes	0	10	0	5	1	2	18
No	40	9	36	23	44	35	187
D.K.	1	2	3	2	3	1	12
Total	41	21	39	30	48	38	217

CHI-SQUARES

	Teachers	Staff Personnel
Staff Personnel	4.56^{*}	
Line Administrators	0.03^{ϕ}	3.44^{θ}

$^{*}p =< .05$

$^{\theta}p =< .10$

$^{\phi}p =$ not significant

Appendix E

Identification of Persons Interviewed by Title

Denver, Colorado

2 Members of Board of Education (including Vice-President)
1 Supervisor of Health Instruction
1 Director, Library Services
1 Supervisor, School-Community Relations
1 Deputy Superintendent for Instructional Services
1 Superintendent
1 Assistant Superintendent for Business Services
1 Director, Budgetary Services
1 Director, School-Community Relations
1 Director, Substitute Teacher Personnel Services
1 Director, Art Education
1 Director, Health Education (Athletics & Safety)
3 Principals, Secondary
3 Principals, Elementary
1 Director, Lunchrooms
1 Director, Home Economics Education
1 Director, School Health Services
1 Assistant Director, School Health Services
1 Supervisor, School Nurses
2 Assistant Supervisors, School Nurses
1 Director, Special Services
1 Director, Denver Public Health Department
1 Director, Visiting Nurse Service, Denver Public Health Department
2 Physicians, School Health Services

31

Duval County, Florida

2 Members of Board of Education
1 Assistant Superintendent for Curriculum
1 Supervisor for Custodial Services
3 Principals, Senior High
3 Principals, Junior High
4 Principals, Elementary
1 Director of Safety and Civil Defense

Duval County, Florida (continued)

- 1 Director, County Health Department Nurses
- 1 Assistant County Health Officer
- 2 Health Educators, State Department of Health
- 1 Health Officer, City of Jacksonville Health Department
- 3 Elementary Teachers

23

Evanston, Illinois

School District #65

- 2 Members of Board of Education (including President)
- 1 Superintendent
- 1 Director of Health Services
- 1 Director of Nurses
- 1 Business Manager
- 1 Assistant Superintendent for Curriculum
- 4 Principals
- 3 School Nurses
- 1 Director of Pupil Personnel Services
- 1 Director of Building and Grounds

School District #202

- 1 Member of Board of Education
- 1 Assistant Superintendent
- 2 Principals
- 1 Health Education Teacher
- 1 Business Manager
- 1 Director of Nurses

Other

- 1 Health Officer - Evanston Health Department
- 1 Director of Nurses - Evanston Health Department
- 1 Field Nurse - Evanston Health Department

26

Portland, Oregon

1 Member of the School Board (former Chairman)
1 Superintendent
1 Assistant Superintendent of Instruction
1 Business Manager
1 Director for Special Services
1 Supervisor of Health and Physical Education
1 School Physician (part time)
1 City Health Officer
1 County Health Officer
1 Director of Public Health Nursing for City Health Department
1 Area Director of Elementary Education
1 Assistant Superintendent for Model School Program
4 High School Principals
3 Elementary School Principals
2 City Health Department Nurses

20

Prince George's County, Maryland

1 Member of Board of Education
1 Director of Curriculum and In-Service Training
1 Director of Pupil Personnel Services
1 Supervisor of Plant Operations
1 Supervisor of Health Services and Health Instruction
1 Supervisor of Testing and Research
1 Coordinator of Health Services
1 Coordinator of Safety Education
1 County Health Officer
6 Elementary School Principals
3 Junior High Principals
4 Senior High Principals

22

Tacoma, Washington

1 Superintendent
1 Deputy Superintendent for Instruction
1 Assistant Superintendent for Pupil Personnel Services
1 Assistant Superintendent for Personnel
1 Administrative Assistant for Personnel
1 Administrator for Elementary Education
1 Administrator for Secondary Education
1 Director of Child Study
1 Supervisor of Maintenance
1 Administrative Assistant for Maintenance and Custodial Services
1 Administrative Assistant for Budget Planning
1 Coordinator, Community Resources
1 Assistant in Pupil Personnel Services
1 Director of School Health Services
1 Supervisor of School Nurses
1 Director of Health Education
1 Director of County Health Department
1 Supervisor of Public Health Nursing
1 Director of Special Education
5 Elementary School Principals
2 Junior High Principals
1 Senior High Principal
6 Elementary School Teachers

33

Summary Total of Field Interviews

Denver, Colorado	31
Duval County, Florida	23
Evanston, Illinois	26
Portland, Oregon	20
Prince George's County, Maryland	22
Tacoma, Washington	33
Total	155

Appendix F

Health Problems Identified

The first question of the mail questionnaire was as follows:

"I. What, in your opinion, are the five most important problems facing your school district at the present time in the area of student health? Consider and compare problems in health services, health instruction and school environment and list them in order of their importance.

1.)______________________________

2.)______________________________

3.)______________________________

4.)______________________________

5.)______________________________

Below are the responses made to this question. The figures shown are the total number of respondents listing each problem, all six school districts combined. It will be noted that there is an intermingling of student problems and administrative problems.

1.	Mental and emotional problems	105
2.	Dental decay	68
3.	Nutritional deficiencies	53
4.	Instruction in family life, venereal disease, and sex education	52
5.	Smoking by adolescents	50
6.	Work needed on health curriculum	47
7.	Need for more and better trained teachers in health education	44
8.	Consumption of alcohol by adolescents	42
9.	Inadequate school nurse services and need for better trained and oriented nurses	37
10.	Promiscuity by adolescents	32
11.	Poor habits of rest, mealtimes, etc.	31
12.	Lack of parental concern	31
13.	More time and better facilities for teaching health	27
14.	Medical supervision needs of students	22
15.	Lack of home training - personal hygiene, etc.	20

16.	Absence of any organized health instruction program	19
17.	Need for a coordinator and/or a coordinated school health program	19
18.	Help in poverty areas and programs	18
19.	Need for follow-up of school health and nursing services	17
20.	Attention to mental health of classroom teachers	15
21.	Lack of concern on part of teacher	14
22.	Poor physical examination and medical services	12
23.	Need to improve student health attitudes	12
24.	Vision disorders	11
25.	Hazards in the school environment	9
26.	Poor administrative climate	9
27.	Home pressures	9
28.	Lack of financial backing	8
29.	Traffic safety and general safety	8
30.	Use of narcotics	8
31.	Miscellaneous items	7 down to 2
32.	Other items mentioned only once	63